DOCTOR OF PHILOSOPHY

Rethinking Operator-Contractor Risk Allocation in a post-Macondo Era

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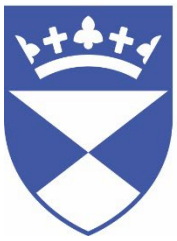

Centre for Energy, Petroleum and Mineral Law and Policy
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ABSTRACT

The risks associated with people, property and the environment during drilling operations drive operators and contractors to use contracting practices such as mutual indemnity agreements to allocate risks. The management of these physical exposures is without regard to negligence, and most times, the gross negligence of parties. For obvious reasons, the non-reference to a party's grossly negligent conduct is not compatible with public policy as it reduces the incentive to use good oilfield practice that could prevent the risk of harm. It also makes a party not at fault to bear the loss arising from another party's gross negligence. Mutual indemnity agreements should apply subject to gross negligence to align with public policy objectives so that the party at fault will be liable through a principled route. The party at fault will now bear liability for its seriously wrongful conduct. Nevertheless, this will be up to a stated cap, to balance the risk and reward system and the different status of the parties in the oil industry. The proportionality element of distributive justice, as adapted, supports this underpinning through the use of a cap. Mechanically, it means that where there is gross negligence, the party at fault cannot rely on mutual indemnity agreement as a shield against liability. To ensure compliance, oil and gas laws, and model clauses or model PSCs could provide for indemnity agreements to apply subject to gross negligence. In this way, gross negligence is a term of art, thus, promoting good oilfield practice and de-incentivizing seriously wrongful conducts to achieve public policy objectives.

DECLARATION

I hereby declare that this thesis represents my own work unless, otherwise stated in the body of this research.

Smith Ikechukwu Azubuike ……

Supervisors:

Dr Sergei Vinogradov ……

Mr Stephen Dow ……

DEDICATION

To Almighty God

To Joy, and my wonderful kids, Chimasirim, Chimeka, and Chimkarila.

To my beloved parents, Mr. and Mrs. John Oyoyo Azubuike.

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Special thanks to God Almighty for the grace to carry out this research. The strength and health came from God. Also, I am grateful to the Centre for Energy, Petroleum and Mineral Law and Policy (CEPMLP), University of Dundee, for the sponsorship I received to undertake this study. Rivers State Government in Nigeria is acknowledged for their support in my first year of this research.

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To my parents, Mr and Mrs John Azubuike, and my siblings, I am grateful for your prayers and support. To all my numerous friends in Dundee who contributed to the success of this study in one way or another, I remain grateful to you. Special thanks go to my kids (Chimasirim, Chimeka and Chimkarila) who endured all the challenges that accompany a PhD research and being a father. I will never forget the hard times you endured just to allow me to achieve this degree. Your sacrifice is remarkable. Your patience is above and beyond.

TABLE OF CONTENT

LIST OF FIGURES

LIST OF TABLES

LIST OF ABBREVIATIONS

AI	-	Additional Insured
AIPN	-	Association of International Petroleum Negotiators
BoP	-	Blowout Preventer
BP	-	British Petroleum
CWA	-	Clean Water Act
D.J	-	Distributive Justice
DECC	-	Department of Energy and Climate Change
E&P	-	Exploration and Production
EU	-	European Union
GN	-	Gross Negligence
GoM	-	Gulf of Mexico
HG	-	Host Government
HSE	-	Health and Safety Executive
IADC	-	International Association of Drilling Contractors
IMMH	-	Industry Mutual Hold Harmless
IOC	-	International Oil Company
JOA	-	Joint Operating Agreement
JV	-	Joint Venture
LOAIA	-	Louisiana Oilfield Anti Indemnity Act
LOGIC	-	Leading Oil and Gas Industry Competitiveness
MODU	-	Mobile Drilling Unit
NNPC	-	Nigerian National Petroleum Corporation
NOC	-	National Oil Company
OCSLA	-	Outer Continental Shelf Land Act
OCSLA	-	Outer Continental Shelf Land Act
OML	-	Oil Mining Lease
OPA	-	Oil Pollution Act
OPL	-	Oil Prospecting Licence
OPOL	-	Oil Pollution Liability Agreement

OSD	-	Offshore Safety Directive
PSC	-	Production Sharing Contract
TOAIA	-	Texas Oilfield Anti Indemnity Act
U.K	-	United Kingdom
U.S.A	-	United States of America
UKCS	-	United Kingdom Continental Shelf
UNCLOS	-	United Nations Convention of the Law of the Sea
UNEP	-	United Nations Environment Programme
WHP	-	Well Head Platform
WM	-	Wilful Misconduct

Chapter 1: Contractual risk allocation in the Oil industry – The need for change?

"The Oil spill could be seen as the embodiment of a long-lasting culture of complacency… the organisational culture allowed for missed warning signals … and poor perception to risks involved"[1]

1.0 Introduction

The exploration and exploitation of oil and gas, either offshore or onshore, is replete with hazards which affect people, property and the environment.[2] Petroleum operation is associated with risk and a level of difficulty, mainly when hydrocarbon resources are located offshore.[3] As a result, the oil industry designed several contracting practices, such as mutual indemnity agreements, to allocate risks and manage physical exposures.[4] These risks are allocated between an operator and a contractor, based on contract and not on tort, and without regard to fault. The non-application of fault relates to negligent conduct and, most times, the gross negligence of a party who occasioned the harm or loss.

Conventionally, the understanding of risk distribution is founded on the common law concepts of fault and negligence or breach of contract. Nevertheless, participants in the oil industry use mutual indemnity agreements to modify the liability of the contracting parties to suit their business benefit, a typical example of the expression of the concept of freedom of contract. The practice in the oil industry is that risks are allocated based on ownership of property, personnel and the control of the polluting activity. It means that parties bear the liability that arises from the injury or death of their staff, and damage to their property occasioned during drilling activities.[5] This liability is without regard to fault, either arising from negligence or gross negligence. Concerning pollution damage,[6] the drilling contractor assumes liability for surface

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[1] Kristel De Smedt and Hui Wang 'Offshore-related Damage: Facts and Figure' in Michael Faure (ed), *Civil Liability and Financial Security for Offshore Oil and Gas Activities* (Cambridge University Press 2017) 60-61. This was the summary of some major findings by the National Commission on the BP Deepwater Horizon oil spill. For details on the Commission's report, see 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, 2011). Hereinafter called "Report to the President"

[2] These hazards are the risk of injury or death of personnel, property damage, and pollution damage during petroleum operations.

[3] Greg Gordon, 'Risk Allocation in Oil and Gas Contracts' in Greg Gordon, John Paterson, and Emre Usenmez (eds), *Oil and Gas Law: Current Practice and Emerging Trends* (2nd edn, Dundee University Press 2010).

[4] Ibid, at 443.

[5] Injury or death of staff and property damage falls under the first limb of the rule in ***Hadley v Baxendale (1854) 9 Ex 341*** as direct losses. These are losses that flow naturally from any conduct that occasion harm in drilling operations. People may either die, get injured or properties will be destroyed in the event of an accident.

[6] Pollution damage could result in direct or indirect loss. Under the rule in ***Hadley v Baxendale***, losses which may fairly and reasonably be considered arising naturally from the breach of contract, which were reasonably foreseeable in the ordinary course of events, are direct losses whereas damages as may reasonably be supposed to have been in the contemplation of both the parties at the time the contract was made, are indirect losses. Regulatory

pollution while the well operator is responsible for subsurface pollution, notwithstanding the fault of the party that caused it.[7] The oil and gas industry had carried on with this practice through standard industry contracts established over time.

Although these model form contracts have been mostly non-contested, the incident at Macondo resulted in a revised perception to risk exposure, especially for grossly negligent conducts. The oil spill at the Gulf of Mexico led to a serious legal fallout in the United States (US) and occasioned regulatory changes in several jurisdictions.[8] Thus, bringing the practice sharply into focus. The Macondo incident also activated a re-evaluation of the industry practice, especially from a public policy angle.[9] Evidence from the oil industry and some literature suggests that operators are proposing a modification of the contractual risk allocation practice to mandatorily include gross negligence as an exception in mutual indemnity agreements.[10] A re-assessment of the industry practice of using mutual indemnity as a protection against liability for gross negligence is necessary for determining whether a public policy will be violated as a result of the practice. This public policy perspective in mutual indemnity agreements, concerning gross negligence, formed an essential point of argument in the BP v Transocean litigation.[11] It also forms the gravamen for analysis and discussion in this thesis.

In the British Petroleum (BP) v. Transocean case, it was contended on behalf of BP that public policy bars a party from receiving an indemnity for its gross negligence. Transocean argued against BP' public policy concerns. In deciding the issue of public policy, the court in the BP v Transocean case considered parties' freedom to contract and the public policy concerns raised. The court held that *"[t]his issue creates tension between two policies: freedom of*

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fines for pollution at sea (physical damage) may be classified as direct loss, whereas loss of fishing and other economic rights, depletion of shrimps, and other forms of consequential loss, may be regarded as indirect loss arising from the pollution.

[7] Peter Cameron, 'Liability for Catastrophic Risk in the Oil and Gas Industry' (2012) 6 International Energy Law Review 207.

[8] Sergei Vinogradov, 'The Impact of the Deepwater Horizon: The Evolving International Legal Regime for Offshore Accidental Pollution Prevention, Preparedness, and Response' (2013) 44 (4) Ocean Development and International Law 335, 336. The Macondo incident clearly highlights the heightened challenge of hydrocarbon operation in extreme environment as regards drilling, well control and pollution management. Hydrocarbon exploration and production in remote environments and Deepwater increases the likelihood of a higher aggregation in risk exposure.

[9] Wan M. Zulhafiz, 'Recent Trends in Allocating of Risk Post-Macondo: The growing tension between Oil and Gas Standard Forms of Contract, and Contractual Practice' (2017) (5) International Energy Law Review 174, 180. Public policy is concerned about conducts which causes harm to society. It seeks to deter the occurrence of such harm and to punish people who occasion it. The essence is to protect society.

[10] Cameron (n 7) 207; Michael J. Wray and Rachel Reese, 'Does a Good Deed Go Unpunished: The Availability of Responder Immunity in an Oil Pollution Response' (2012) 8 Texas Journal of Oil, Gas & Energy Law 349.

[11] In Re Oil Spill by the Oil Rig "Deepwater Horizon" in the Gulf of Mexico on April 20 2010 841 F. Supp.2d 988, 994 MDL No.2179 (District Court, E.D. Louisiana, 2012).

contract, which weighs in favour of enforcing the indemnity, and a reluctance to encourage grossly negligent behaviour, which weighs against enforcing the indemnity. The general rule is that competent persons have the utmost liberty of contracting, and therefore, agreements voluntarily and fairly made are upheld. Although a contract can be invalidated because 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 ... variable".[12]

It is worth noting that that some key considerations influenced the court's decision in the BP v Transocean case to allow a party to be indemnified for its gross negligence.[13] The first is that there is no previous decision on the issue of public policy concerning mutual indemnity, which could bind the court to rule otherwise. A clear direction would have been provided on the issues by the Supreme Court decision in Baker v. Exxon, but the court was split on its decision. However, the District Court in the BP case noted that a party could only receive an indemnity for its gross negligence concerning compensatory damages and did not include punitive damages which could arise where a party was found grossly negligent.[14]

Again, the court's ruling was influenced by the consideration that the bargaining power of the parties was roughly equal, hence the need to allow the indemnity clause on the freedom of contract policy as against public policy concerns. The court stated that "[*a]s to the 'freedom of contract' argument, Transocean and BP appear to have held 'roughly' equal bargaining power. Transocean and BP are sophisticated entities that engaged in a potentially lucrative and obviously risky endeavour. The Drilling Contract reflects that they attempted to allocate risk ahead of time, ostensibly in the hopes that some degree of certainty may be brought to the risks inherent in that undertaking. Given that their bargaining power was roughly equal, the 'freedom of contract' policy weighs in favour of upholding the indemnity".*[15]

A further ground why the court did not invalidate the mutual indemnity agreement for gross negligence on the grounds of public policy violation is that the agreement contained reciprocal indemnities. The court noted that "[*a]s to the argument that contractual indemnity for gross negligence contravenes public policy, it is significant that the Drilling Contract allocated risk to both Transocean and BP, not just BP. For example, Transocean admits that it bears liability*

[12] Ibid.
[13] Zulhafiz (n 9) 180.
[14] In Re Oil Spill by the Oil Rig "Deepwater Horizon (n 11).
[15] Ibid.

for the deaths and injuries to its crew members and the loss of its equipment under Articles 21.1 and 22.2. With regards to pollution, Transocean assumed responsibility for pollution originating at or above the water's surface in Article 24.1. Given these risk allocations, a grossly negligent act by Transocean could result in liability to Transocean as easily as it could have resulted in liability to BP. In other words, the reciprocal nature of these indemnity clauses arguably created an incentive for Transocean to avoid grossly negligent conduct, or at least did not encourage Transocean to act in a grossly negligent manner. These considerations weaken the argument that the indemnity should be invalidated."

One thing that can be deduced from the ruling of the court is that public policy violation is a ground for a court to invalidate a contract that uses indemnity agreement as a cover against liability for gross negligence. Arguably, public policy may be regarded as being variable in some instances, but BP's argument and the court's decision raises the concern whether mutual indemnity agreement should insulate a party from its gross negligence in terms of public policy? This concern is raised primarily in the light of the provision of section 1004 (c) (1) of the Oil Pollution Act 1990 which removes the cap on liability where a responsible party, his agent or a person acting pursuant to a contractual relationship with the responsible party, occasions damage arising from its gross negligence. The intention of the legislature here is to prohibit behavours that are grossly negligent so that harm would be avoided during petroleum operations. The court has a duty to enforce the intention of parliament so that public policy will not be violated. This aligns with the mischief rule of interpretation by courts.

While parties are free to contract, the efficiency argument in contract law enjoins courts only to enforce voluntary agreements that do not produce negative externalities, their distributive consequences notwithstanding.[16] In the oil and gas industry, negative externalities refer to practices that encourage grossly negligent behaviour, which could result in harm/loss to society. This argument, among others, forms the basis for which the court can invalidate an indemnity clause that shields a party from liability for gross negligence, as validating it would violate public policy objective. It must be noted that restrictive contract practices are appropriate means of de-incentivizing severely wrongful conducts[17]during petroleum operations.

[16] Robert B. Cooter and Thomas Ulen, *Law and Economics* (6th edn.) (Essex: Pearson Education limited 2013).
[17] Eric A. Posner, 'Contract Law in the Welfare State: A defense of the Unconscionability doctrine, Usury laws, and related limitations on the freedom to Contract' (1995) 24 The Journal of Legal Studies 283.

Public policy canvasses deterrence and liability for wrongful behaviour, especially grossly negligent conducts[18]which the oil industry practice allow. It has been stated that the absence of liability for a party's grossly negligent conduct could induce a want of care.[19] The exercise of less care arises from the fact that the party that occasioned the harm has no responsibility for the harm caused, despite being grossly negligent. Although it is '*market practice'* in the oil industry to allocate risk this way, this is not compatible with public policy as it reduces the incentive to engage in good oilfield practice to prevent the risk of harm. This practice could cause society to suffer harm and make a party not at fault to bear the loss arising from another party's gross negligence. It may result in a moral hazard during drilling operations, as seen in the Macondo accident.

Also, the deterrence and liability objective of public policy could be negated if grossly negligent conducts are not discouraged. Reciprocity of risk in indemnity agreements does not address the public policy concern that a party can be grossly negligent in the conduct of operations, which could not result in liability on its part but to another person. However, assuming responsibility in whatever way, shape or form will address the concern and de-incentivise grossly negligent conduct in petroleum operations. This responsibility could come in a percentage or amount and the liability caped to align with the public policy objective of de-incentivising seriously awful behaviour.

In light of the above discussion on the use of mutual indemnity agreement as a shield or cover against liability for gross negligence, this study investigates the compatibility of this practice with public policy. The fundamental question here is whether parties in a drilling contract should be allowed to allocate risk through mutual indemnity without regard to the exception of gross negligence in terms of public policy? Can parties, standing behind the veil of ignorance, allocate risks in this manner when they are unaware of the position they will be on the other side of the veil?

This study concerns itself with grossly negligent conduct as opposed to mere negligence. This concern is because the practice of risk allocation takes into account the positions of the parties

[18] Stephen Kelleher, 'Public policy limitations on Indemnity for sole or partial negligence' (SmithCurrie, 7 July 2014) <https://www.smithcurrie.com/publications/common-sense-contract-law/public-policy-limitations-on-indemnity-for-sole-or-partial-negligence/ > accessed 25 April 2015.

[19] *CSX Transportation, Inc. v. Massachusetts Bay Transportation Authority*, 679 F.Supp.2d 213, (D. Mass. 2010). The court held that the interest of public policy lie in deterring and punishing people who commit gross negligence and that the public policy of deterrence will not be achieved by allowing a party to a contract to indemnify against the gross negligence of another.

and the risk and reward system in the oil industry.[20] As a result, mere negligence is usually not an issue of concern, especially as it achieves the '*business benefit'* rationale and enable parties to move risk around based on the freedom of contract. However, public policy limits the freedom of contract, especially when such freedom could result in negative externalities.

The risk and reward system balances operators' long-term financial upside and the considerable rewards of Exploration and Production (E&P) success with drilling contractors' short-term financial reward. Contractors do not share in operators' revenue-earning.[21] Public policy could allow mere negligence to apply without regard to fault, giving the risk and reward underpinning, the '*market practice*' of risk allocation and the utility of drilling activity to man. However, public policy and distributive justice could be undermined if mutual indemnity agreements are allowed to operate as a cover for grossly negligent conducts during petroleum operations. Concerning mutual indemnity agreements, public policy would require that liability for the most grievous conduct (in reality, a system failure which allows that conduct) should be borne by the grossly negligent party in any shape or form. The essence is to discourage the behaviour that is not in tandem with public policy.

The contract between British Petroleum and Transocean and other contracts as examined in this study applied mutual indemnity agreement without making it subject to the exception of gross negligence. The problem is that this type of contract could reduce the incentive to exercise care, encourage moral hazard and cause harm to society. Public policy is opposed to this. This thesis argues that the practice of using mutual indemnity agreements as a protection against liability for gross negligence, as in the BP and Transocean contract, is not compatible with public policy. This is because the current practice places responsibility for the seriously wrongful conduct of a given party on another party. Thus, encouraging behaviours that could result in harm. J. Rawls, in his book "*A Theory of Justice"*, note that behind the veil of ignorance, a practice or a law should allow people live their life without harming others, that people should be able to improve their life as a result of the practice or law, and that inequalities should be for the benefit of all.[22] The reference to everyone includes people that may be affected by the practice or the law.

Related to the public policy concern is the discussion on the meaning of gross negligence for which this thesis provides a definition that could guide contracting parties. Again, the

[20] Cameron (n 7) 207.
[21] Ibid.
[22] John Rawls, A *Theory of Justice* (Rev. edn.) (Massachusetts: Harvard University Press, 1999) 118.

distributive justice discussion set the stage for the proportionality conversation (liability cap) which provides the basis for which responsibility for gross negligence in mutual indemnity contracts align with public policy to de-incentivise seriously wrongful conduct. The proportionality element of distributive justice canvasses the need to take responsibility for gross negligence subject to a liability cap that recognises the positions of the parties. To achieve alignment with public policy, regulation - oil and gas law, model clause or model PSC - can play a role to ensure that parties to a contract do not apply mutual indemnity agreement as a cover for gross negligence during risk allocation. The elements of fairness and proportionality in distributive justice will help in facilitating a rethink of the current practice while still preserving the risk and reward system in the oil industry. The Rawlsian veil of ignorance helps to explain how people behind a veil of ignorance can allocate risk in the interest of all, irrespective of their inequalities.

In examining these issues in detail, a background is presented to understand the contractual relationship between well operators and drilling contractors, and their positions in the contractual matrix, in the face of risk aversion by operators. The new perception to risk exposure strengthens the need to develop new responses to reduce the heightened tension associated with risk allocation in the oil industry during drilling operations.

1.1 Background

The exploration and exploitation of hydrocarbons usually follow after a state government has granted the right to access the hydrocarbon. This right could be in the form of a Production Sharing Contract (PSC), a Concession, a Risk Service Agreement or any form approved by the petroleum regime of a host state (HS). This permit to access hydrocarbon is granted to a company which is later known as the contractor/licensee or operator of the licenced area. The licensee or owner is a contractor to the state government, who carries out petroleum operations in the terms and conditions set out in the oil and gas law, the model Clause agreement or model PSC agreement. He is the party that is responsible to government where there is an accident or pollution damage, in terms of the PSC or the Concession. The operator implements the work programme and ensures compliance with government regulations.

The licensee may carry out the petroleum operation solely or jointly, with other companies, as is the case most times. When done solely, the licensee could be the well operator. If it is a joint effort, one of the parties is appointed the well operator while others are known as co-ventures or non-operators. The operator engages a drilling company to carry out drilling operations after

seismic data have revealed the availability of hydrocarbon in commercial quantity. Other activities, such as wire logging, cementing and other technical aspect follows the drilling operation. There are also other subcontractors and service providers in an oil and gas platform. Before drilling activities commence, parties, especially the well operator and the drilling contractor, enter into agreements, in anticipation of possible damages that follow petroleum operations. As stated earlier, it is the operator or owner that is responsible to the government in the event of an accident during a drilling operation. However, the well operator contracts with the drilling contractor to manage exposures and allocate risk among themselves to bypass the application of tort law in the determination of fault. This is done through private contract between the operator and the contractor.

Offshore hydrocarbon exploration and production is a risky activity, involving huge capital investment.[23] As earlier stated, it comprises of operators, contractors and subcontractors[24] who are specialists in seismic acquisition and processing, drilling, cementing, and wire logging. In the drilling environment, contractors provide numerous operational equipment and tools, such as drill pipes, compressors, drill bits, and other completion equipment.[25] Negligence from any of the parties could lead to a significant accident as they all provide interrelated and interconnected services. Where an accident occurs, litigation will follow to determine causation and liability. However, litigating disputes arising from offshore drilling operations involves a *'multiparty donnybrook*' with '*ambiguous-amphibious*' workers. It also includes the application of several principles of law to the contract and tort actions, depending on the governing law applicable to the claim.[26] Risks are therefore allocated through a contract in the oil industry to restrict the application of tort law of negligence when a downside occurs.

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[23] Toby Hewitt, 'Who is to Blame? Allocating Liability in Upstream Project Contracts' (2008) 26(2) *Journal of Energy and Natural Resources Law* 177.

[24] In the oil and gas industry, an operator is the holder of a petroleum licence or lease for a particular petroleum operation. A contractor is the party that provides services for the operator of the lease or licence. The service could be well drilling services, well maintenance services, facility hire or maintenance. The allocation of parties' liabilities follows standard industry contracts which reflects the practice of risk allocation in the oil industry. The industry's allocation of liability is not tort-based. It follows the business convenience ideology that avoids long causal determination. The Court in Chesapeake Operating Inc. v, Nabors Drilling USA Inc, *94* **S**.W.3d 163, 168 [Tex. App. 2002] explained the challenges in drilling thus: "*Drilling sites, of course, can be hazardous places. When injuries occur, it is often difficult to tell who is at fault due to the complex nature of the enterprise, the large number of subcontractors usually involved, difficult questions regarding the right to control, and the intersection of premises liability and agency law in drilling operations. As a result, there are usually two disputes to resolve- one pitting the injured party against all those potentially responsible, and another among the defendants to allocate fault and the resulting burden of any settlement or judgment*".

[25] Ernest Smith and others, *International Petroleum Transactions* (3rd edn, Rocky Mountain Mineral Law Foundation 2010).

[26] Kenneth Engerrand, 'Indemnity for Gross Negligence in Maritime Oilfield Contracts' (2012) 10 Loyola Maritime Journal 319.

As the scale of personal injuries, property damage and environmental harm increase, the extent of liability widen, thereby creating the need for offshore hydrocarbon contracting parties to allocate risk in a manner that would enable them to manage their respective liabilities. In risk allocation, the relative bargaining positions of the parties or type of transaction determine what risk(s) a party may accept to assume. The fairness conception may also determine the manner the perceived risks are allocated between parties. It must be noted, however, that contractual bargains and risk allocation have evolved to show the realities of offshore petroleum operations and the economic necessities of offshore drilling activities.

Consequent on the risk in the oil industry, operators generally agree to be held responsible for losses from blowouts, well control, including relief wells, downhole damage, clean-up and remediation, and damage or loss to the reservoir. Again, they accept responsibility for damage to their property and injury to their personnel, howsoever caused. In return, drilling contractors generally agree to be held responsible for the risk of pollution that emanates from their equipment above the surface of the water, damage to or loss of property, and death or injury of their employees, the fault notwithstanding. These risks are allocated using contractual clauses that include, but not limited to, hold harmless clauses, mutual indemnities, disclaimers, exculpations clauses etcetera.[27] Most times, the mutual indemnity agreement is not subject to the exception of gross negligence on the part of the party who occasioned the harm or loss.[28] At other times, gross negligence is carved out as a liability trigger.[29]

Between the operator and the drilling contractor, the allocation of risk may be an actual transfer or a trade-off of liability that would have ordinarily been the liability of the party at fault.[30] This risk allocation is mainly achieved through the use of mutual or reciprocal indemnities which operate as a shield.[31] In this regard, an indemnity in the oil and gas industry could be described as an agreement between parties to a contract, where one party undertakes to cover the loss, liability or damages suffered by the other party from some anticipated acts or damages arising from claims against such party. It has been advanced that mutual indemnity is aimed at

[27] Penny Parker and John Slavich, 'Contractual Efforts to Allocate the Risk of Environmental Liability: Is there a way to make Indemnities worth more than the Paper they are written on?' (1990) 44(4) Southwestern Law Journal 1349.
[28] See appendix 2 and 3 of the annexures.
[29] See appendix 4, Article 17.1.3 of the annexure. In this contract, pollution harm resulting from gross negligence was carved-out as a trigger for liability.
[30] Roger Stone and Jeffrey Stone, 'Indemnity in Iowa Construction Law' (2005) 54 Drake Law Review 126.
[31] However, under conventional indemnification, indemnity operates as a sword. In this regard, the indemnitor, who is the guilty party, pays the indemnitee for the losses he suffered from the wrong doing of the indemnitor.

contractual protection[32]with a control-based underpinning founded on care, custody and control to achieve efficiency.[33] While certainty and clarity are mainstreamed into the contract, public policy concerns,[34] fairness issues and moral hazard questions are raised in this practice of risk allocation through mutual indemnities. The concern relates to the shield mutual indemnity give when the issue of liability for gross negligence arise.

Mutual indemnity is a fundamental risk allocation tool in the oil industry. An indemnity could take the form of a claim for reimbursement wherein a party who has paid or may pay some money for a loss or liability, claims against the other party to the contract.[35] In some cases, however, an indemnity may serve to limit the liability of a party to another party in a contract.[36] An indemnity may also be described as an agreement where a contracting party (indemnitor) accepts to protect the other party (indemnitee) against future damage or loss by making payment to the indemnitee when the latter suffers a loss for which the indemnitor agreed to protect the indemnitee.[37]

The practice of mutual indemnification even received judicial approval when the court in ***Caledonia North Sea Ltd v. London Bridge Engineering Ltd*** (London Bridge case)[38] recognised mutual indemnity as a "*Market Practice*" created to address the unique nature of the hydrocarbon industry. In contractual interpretation, voluntary transactions are given effect to, where a party, for a consideration, accepts to bear a risk which ordinarily would have been placed on another party by law.[39] This notion is based on the freedom of contract. However, anti-indemnity statutes or public policy in some jurisdictions will preclude a party from using a mutual indemnity agreement as a shield against gross negligence.[40] Public policy is against the enforcement of contracts, which encourages conducts that may result in harm to society.

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[32] David Peng, 'Mutual Indemnities in North Sea Contracts – Liability and Insurance Clauses' in David Peng (ed), *Insurance and Legal Issues in the Oil Industry* (Graham & Trotman 1993).
[33] Smith (n 25) 674.
[34] Public policy concerns triggered the enactment of anti-indemnity statutes in some state in the United States of America. E.g. Texas and Louisiana.
[35] Ibid 127.
[36] Parker and Slavich (n 27) 1351.
[37] Nick Kangles and others, 'Risk Allocation Provisions in Energy Industry Agreements: Are We getting it Right?' (2011) 49(2) Alberta Law Review 341; Linda Richardson and others, 'Indemnities in Commonwealth Contracting' (*Legal Briefing*, 19 August 2011) < https://www.ags.gov.au/publications/legal-briefing/br93.pdf> accessed 12 May 2015.
[38] [2002] UKHL 4, [2002] 1 LLR 553, [2002] 1 All ER (Comm) 321.
[39] *Tunkl v. Regents of University of California* [1963] 60 Cal.2d 92. But onerous or impracticable conditions may prevent a party from fulfilling his voluntary transaction.
[40] Andrew A Beerworth, 'Emerging Trends In Construction Indemnity and Insurance Law' (2010) 58(5) Rhode Island Bar Journal 17; Engerrand (n 26) 327.

It is worth mentioning that in drilling contracts, third-party liability is based on fault and not on a mutual hold harmless regime.[41] Liability under tort emanates from fault or breach of duty, with the operational word being "*negligence or contributory negligence"*. A party in breach is obligated to compensate the non-breaching party to mitigate the loss. The compensation is, however, subject to the frustration of contract, the remoteness of damage, etc. Under the common law, though exceptions may be made towards shifting the liability of losses when a person is required to pay damages caused by the negligence of another, he can only be indemnified by the negligent party when no participating fault exists.[42] Where parties contribute to a tortuous act leading to liability, they are joint tortfeasors since the negligence was contributory.[43]

The perspective of courts is that indemnity obligations in non-oil sectors could be construed in two ways. The first being an obligation by the indemnitor or indemnifying party to prevent particular wrongful acts from occurring so that the indemnitee does not suffer loss or damage.[44] The key word here is "*prevent loss*", and where the court construes the indemnity obligation to mean "prevent loss", the indemnitor (indemnifying party) will be in breach of contract if the indemnitee (indemnified party) suffers the stated loss. Accordingly, the remedy for the party to be indemnified will be to claim damages for breach of contract from the indemnifying party.[45]

The other interpretation will be to construe the indemnity provision as requiring an indemnitor to "*compensate or make good*" an indemnitee, for a loss which the indemnitee has suffered.[46] The key word is *"make good",* and where this is the interpretation of the court, the indemnitee can bring a claim for compensation under the contract against the indemnitor for the particular loss it suffered.[47] While this interpretation conforms to public policy, it contrasts with the mutual indemnification practice by players in the offshore oil and gas industry.

In offshore drilling contracts, the allocation of risk through mutual indemnities is based on the agreement of parties, and the liability arises from contract and not tort. The result is that a party

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[41] Hewitt (n 23) 184.
[42] Gordon (n 3) 443.
[43] Michael A Jones (ed), *Clerk and Lindsell on Torts* (20th edn, Sweet and Maxwell, 2010) 273.
[44] *Firma C-Trade S.A. v. Newcastle Protection and Indemnity Association* [1991] 2 AC 1.
[45] Ibid.
[46] *Caledonia North Sea Ltd v. British Telecommunications Plc* [2002] 1 Lloyd's Rep 553. The case is also known as the Piper Alpha case.
[47] Rajdeep Choudhury, 'You Break It; I Buy It. The Curious Case of Knock-for-Knock Indemnities' (2017) 1 OGEL 2 <www.ogel.org/article.asp?key=3730> accessed 12 November 2017.

is not contractually responsible for its grossly negligent conduct, which has resulted in harm or loss to others, where such risk was not allocated to the party. The party with the contractual responsibility bears the loss. Cost is assumed according to who hired the injured party or owned the damaged property, and not who caused the accident. Thus, eliminating the causation/fault dispute between the well operator and the drilling contractor. It gives them the confidence to assume their obligation and to insure against risks.[48] The underpinning, as stated earlier, is that parties want to assume risks based on control, ownership, and the reward each party derive from the activity.

In certain jurisdictions, gross negligence applies as carve out for liability to attach to the party at fault. However, the application of gross negligence is optional and not compulsory. Arguably, the reason for applying it as an exception to the general practice is to address deliberate sabotage and moral hazard between contracting parties in the oil and gas industry. However, a significant challenge in the application of gross negligence as carve-out is that it has no clear legally defined or acceptable standard. A precise definition of gross negligence has been a source of contention in many jurisdictions. In the judicial and legislative circles, this term has been defined inconsistently, with different meanings depending on the jurisdiction or legal context.[49]It is worth noting that gross negligence is conduct as opposed to being an intention which many courts have confused it with in their decisions. This study defines gross negligence *as conduct which falls far below the standard of a reasonable man.* The reasonable man, as used in this thesis refers to good oilfield practices that guide petroleum operations.

Apart from the contract between the operator and contractor, there are also subcontractors (cementing contractor, wire-logging contractor etcetera) in a drilling operation. The contractor enters into similar agreements with subcontractors, to indemnify or hold the subcontractor harmless in the event of any loss, notwithstanding the fault or extent of damage.[50]

1.1.1 Rationale for mutual indemnity in the oil industry

As earlier stated, one of the main reasons for the practice of mutual indemnity in the oil and gas industry is the certainty it provides. The *business benefit* of certainty hinges on the fact that it brings about clarity and direction into the liability arrangement between parties to a contract,

[48] Engerrand (n 26) 322.
[49] Choudhury (n 47) 8.
[50] A drilling contractor and other subcontractors enter into contractual agreement to indemnify or hold each other harmless for death or injury of personnel, damage to property etcetera. It means that if the negligence or gross negligence of a contractor leads to the death, injury, or property damage of a subcontractor's staff, the subcontractor will bear the burden of such loss. The cause of the loss notwithstanding. It is vice versa

which explains why industry participants favour mutual indemnity. Where a party assumes the risks associated with its property and personnel, he is placed in a vantage position to evaluate the risk and procure the necessary insurance cover needed.[51] Where certainty is achieved, overlapping insurance cover could be prevented, and the overall project cost reduced.[52]

Again, the need to avoid the determination of causation and lengthy litigation between contracting parties explains the preference of indemnification in risk allocation. Applying the fault-based regime for offshore liability is considered time-wasting within a complex contracting chain that includes contractors and subcontractors.[53] It has been stated that the enduring popularity of mutual indemnity in the oil industry is the business benefit it brings in the form of reduced litigation and insurance cost,[54] thus, facilitating upstream project execution. The broad aim of mutual indemnity is to identify and distribute the significant risks that confront the contracting parties during offshore hydrocarbon operations, while also reducing the risk to a bearable or acceptable level.[55]

It must be stated that although the relationship between well operators and drilling contractors is the main focus of this study; there is another aspect worth considering. This aspect is when the operators agree among themselves on how risk is allocated. While the operator and contractor covenants on a mutual indemnity basis, the operator covenants with other operators as co-ventures. Co-venture (joint venture concept) exists in the oil and gas industry to share the possible risks that arise from petroleum operations or to galvanise funds for the exploration and production of hydrocarbon in large fields or blocks. It may also be a requirement by the regulatory body for a particular block or area to be jointly operated. Joint ventures as applicable in this regard does not mean a separate legal entity, but different from ventures in other sectors as they are rather cost sharing than profit sharing arrangements.[56] Joint and several liabilities are owed between co-venturers, albeit, to the extent of their percentage holding capacity in the event of a downside during petroleum operations.[57]

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[51] Choudhury (n 47) 5.
[52] Chid Egbochue, 'Reviewing Knock for Knock Indemnities following the Macondo well blowout' (2013) 7(4) *Construction Law International*, 9.
[53] Ibid.
[54] Cameron (n 7) 208.
[55] Ibid.
[56] P W O'Regan and T W Taylor, 'Joint Ventures and Operating Agreements' (1984) 14(1) Victoria University of Wellington Law Review 85.
[57] Humphrey Douglas, 'Gulf of Mexico Oil Spill: Likely Impact on UK Regulation and Contractual Arrangements' (2011) 22(3) Energy & Environment 245.

1.1.2 The need for change in risk allocation

The operational realities and economic necessities in offshore hydrocarbon operations are evolving.[58] Petroleum operations are moving into extreme environments such as the Arctic, hence, the need for the oil industry practice to assume a changing posture to encourage conducts that would reduce the negative effect of petroleum operations to man and its environment. It is essential to protect the public from harm that could arise from drilling activities and encourage proactive approaches to handling exposures in petroleum operations.

The changing trend of liability regulations in several jurisdictions also calls for a modification in the approach to risk allocation. In some of these jurisdictions, liability has been raised to exceed the statutory limit, where gross negligence is established. Mutual indemnity agreements that are not subject to gross negligence could de-incentivise the exercise of care in drilling operations.[59] It raises moral hazard and public policy concerns as these contracts encourage conducts that could result in harm to society and cause loss to a contracting party who has to pay for the harm resulting from the gross negligence of another party.

The challenges and high risks associated with offshore drilling operations[60]require oil companies to maintain the highest form of responsibility to ensure an accident-free operation. The essence is to avert the acute and chronic effect of hydrocarbon spills[61] and ensure compliance with environmental duty for the good of humanity. It is also to preserve the marine environment and ensure that lives and properties are protected.[62] It follows that for risk allocation to achieve these goals, standard risk allocation agreements should encourage the prevention of damage or loss to the parties and reduce harm to the public.

Compliance, deterrence, and restitution are vital elements that regulate behaviour. Where these elements are absent in a contract, the incentive to exercise care is taken away. Accordingly, it is necessary that mutual indemnity agreement evolve to be subject to the exception of gross negligence, to de-incentivise and make a party liable for serious wrongs.[63] This exception

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[58] Engerrand (n 26) 321.
[59] A de-incentivising contract is a contract that takes away the incentive to exercise care. The reason being that that there is no legal or contractual obligation to reduce harm or damage.
[60] Gordon (n 3) 443.
[61] Douglas A Holdway, 'The Acute and Chronic Effect of Waste associated with Offshore Oil and Gas Production in Temperate Marine Ecological Process' (2002) 44(3) Marine Pollution Bulletin 185.
[62] Declaration of the UN Conference on Environment and Development, Rio de Janeiro, 1992, UN Doc.A/CONF.151/26/Rev.1Principles 3&4. (Hereinafter Rio Declaration).
[63] Nicholas A Ashford and Charles C Caldart, *Environmental Law, Policy and Economics: Reclaiming the Environmental Agenda* (MIT Press, 2008) 808.

could, in turn, influence liability law.[64] Liability for gross negligence will accord with the fairness element of distributive justice and the Rawlsian theory of justice.

From a legal perspective, it is argued that liability law aims to deter injurers, and compensate victims, while economic theories lean towards understanding liability as a quest for efficiency in motivations and risk-bearing.[65] Liability law also creates incentives for a responsible party to reduce risks.[66] The mechanisms of liability are used to create efficient incentives by applying liability rules to internalise cost, create negligence rule to make and enforce effective standards. It is also used to channel transaction into an exchange through liability bargaining.[67] In the same vein, mutual indemnity should evolve to place liability on a party that is grossly negligent in its conduct.

1.1.3 The changing perception to risk exposure

The Macondo disaster set the stage for a rethink in the practice of risk allocation as it brings to the fore perceived lacuna in the industry practice. Prior to the Macondo incident, operators had adopted the traditional practice of risk allocation as earlier explained. However, the Macondo incident raised the aversion to risk, prompted regulatory restructuring in the UK, the US and some notable jurisdictions. It also brought about more onerous financial responsibility for offshore damages.[68] The heightened regulation has triggered the risk aversion and clamour by operators for a change in the risk allocation regime.

On the other hand, contractors are opposed to the change. The argument of contractors stems from the fact that it is the operators that negotiate with state regulators and commit to a well programme and other environmental and safety conditions.[69] They also argue that the operator benefits from the financial upside in the event of a successful operation. Contractors are not part of this financial upside as they do not operate as a vertically integrated company with operators. A vertically integrated company will require equity participation from a drilling contractor and a share in the statutory liability with an operator. Contractors further argue that

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[64] Owen L Anderson and John S Lowe, 'Oil Spills' (2010) 3(2) OGEL Special Issue 2 <http://www.ogel.org/article.asp?key=3027> accessed 22 October 2014.
[65] Robert D Cooter, 'Economic Theories of Legal Liability' (1991) 5(3) Journal of Economic Perspectives 11.
[66] Inho Kim, 'Who Bears the Lion's Share of a Black Pie of Oil Pollution Costs?' (2010) 41(1) Ocean Development and International Law 55.
[67] Cooter (n 65) 11.
[68] Economist Intelligence Unit, 'Big Spenders: The Outlook for Oil and Gas Industry in 2012' (Economist Intelligence Unit, 23 January 2012) < https://eiuperspectives.economist.com/energy/big-spenders/white-paper/big-spenders > accessed 20 April 2014.
[69] Cameron (n 7) 207.

significant and potentially adverse financial implications will result for them and the long-term sustainability of the hydrocarbon industry if they take risks such as subsurface pollution.[70]

However, there is a public policy and moral hazard dimension to risk allocation in the oil industry. When mutual indemnity applies without being subject to gross negligence on the part of the party that occasioned the harm, it runs contrary to public safety. The non-compatibility encourages practices that could increase the risk of accidents by taking away the incentive a party has to behave in ways that could prevent accidents. Thus, creating harm for the public following the absence of an obligation, and making the other party to the contract to bear the liability of severely awful conduct that was not the party's fault. Public policy has an interest in deterring and making a party liable for harm or losses that result from his gross negligence.[71] From a Rawlsian point of view, will parties behind the veil of ignorance contract to use mutual indemnity as a shield for gross negligence? Should the industry rethink or retain the practice it has applied long ago considering the interest of everyone as noted by Rawls?

1.1.4 Retain or rethink the practice?

Traditional industry contracts are predicated on contractual bargaining, allowing parties to shift liability even when the breach is deliberate,[72] but this is not in terms with public policy requirements. [73] The goals of a system of accident law should be just or fair and should also reduce the cost of the accident.[74] The objective of risk allocation should be to de-incentivise harmful conducts that could result in injury or damage, manage liability, and reduce the cost of an accident during petroleum operations. Mutual indemnity agreements for offshore drilling risks should pursue deterrence and compensation, primarily as risks are meant to be prevented during petroleum operations. Between rethinking the practice and retaining the tradition of risk allocation in the oil industry, the following rhetorical questions come to mind. They are to wit:

Is the current practice of indemnification an efficient liability rule of risk allocation? Does the practice of risk allocation promote the public policy of deterrence and liability to discourage gross negligence? Is the risk allocation practice in tandem with the goal of distributive

[70] Ibid.
[71] Kelleher (n 18).
[72] Hugh G Beale (ed), *Chitty on Contracts: Volume 1, General Principles*, (29th edn, Sweet & Maxwell 2004) 803.
[73] Dennis C Stickley, *A Framework for Negotiating and Managing Petroleum Industry Service and Construction Contracts,* (Wellington, 2006).
[74] Guido Calabresi*, The Costs of Accidents: A Legal and Economic Analysis* (Yale University Press, 1970) 24.

justice?[75] *Will parties behind the veil of ignorance allocate risks this way*? These questions are fundamental in retaining or rethinking the practice.

Drilling accidents in the last decades leave many doubts as to whether the traditional industry mechanisms employed for allocation of risk are still effective in realizing the philosophical underpinnings of parties and encouraging good oilfield practices that could prevent damage. Again, the legal fallouts from major accidents (Macondo and Montara) have occasioned serious re-evaluation of the practice of risk allocation.[76] While some scholars posit that risk allocation should be linked with comparative responsibility or degree of contribution to the fault,[77] others note that responsibility should be based on the benefit received from the harmful activity.[78] The former will make a party bear responsibility for its wrongful conduct; the responsibility could be higher than the benefit received from the activity. This is a huge difference from the latter, which conforms to the risk and reward system that underpins risk allocation in the oil industry and the proportionality element of distributive justice as advanced in this study.

In light of the above discussion, this study examined the practice of risk allocation to decipher if the practice conforms to public policy and discourages moral hazard to avoid harm. It evaluated the philosophical underpinnings of risk allocation and argued that the environmental goal of every legal regime is to discourage behaviours that could harm others by using strategies or practices that ensure behavioural change or laws to check wrongful conducts. This study argues that a fundamental aspect of the risk allocation practice - the non-regard to the

[75] Distributive justice is concerned with the fair allocation of benefits and burden of risky activities among members of a given community. Gregory C Keating, 'Distributive and Corrective Justice in the Tort Law of Accidents' (2000) 74 Southern California Law Review 193, 194; Michelle Maiese, 'Distributive Justice' (Beyond Intractability, June 2013) <http://www.beyondintractibility.org/essay/distributivejustice> accessed 10 January 2015. Distributive justice advances the need for benefits and burden to be shared amongst members of a community. In this instance, the operator and the contractor are in the same risky business of drilling together and both benefit from the exploration and production process, hence, the need to bear the burden together. See Chris Armstrong, *Global Distributive Justice: An Introduction* (Cambridge University Press, 2012). Distributive justice requires that the burden of harmful activities that are mutually beneficial should be distributed in relation to the benefit reaped by members. See Keating (n 75) 196. It follows that parties who benefit from an activity that is harmful should also partake of the burden accruing from the same activity.

[76] Tim Taylor, 'Offshore Energy Construction Insurance: Allocation of Risk Issues' (2013) 87(5) Tulane Law Review 1166-1167.

[77] Richard W Wright, 'Allocating Liability among Multiple Responsible Causes: A Principled Defence of Joint and Several Liability for Actual Harm and Risk Exposure' (1988) 21 University of California, Davis Law Review 1142.

[78] Keating (n 75) 196.

fault arising from gross negligence - is that it could incentivise harmful behaviour during drilling operations as seen in the Macondo and Montara Commission reports.[79]

Notably, it was revealed that the Macondo well failed the integrity test, followed by a loss of control of the pressure of the fluid in the well afterwards.[80] If the drilling contractor were to bear liability for gross negligence, it would have taken steps to on its part to prevent the harm. The Commission's report revealed serious acts of complicity by the driller. Because well pollution is not subject to the exception of gross negligence, complacency was the response, and a great disaster struck, after giving vital signs. It has been noted that where the risk is taken away from a wrongdoer and passed on to another party, the wrongdoer will lack the incentive to take care. This is because the deterrent effect of paying compensation when an accident occur, has been taken away from the wrong doer.[81] From the evaluation of the industry practice, a key finding is that mutual indemnity agreements that protection against liability for gross negligence encourage negative oilfield practice. Again, this thesis found that mutual indemnity contracts are shields against liability arising from the fault of gross negligence.

The BP and Transocean mutual indemnity agreement regarding pollution damage[82] was not subject to gross negligence. Thus, it did not create an incentive to exercise care as the indemnity is without regard to gross negligence. It reduced the incentive to be prudent as no obligation will arise from severely wrongful conducts. When less care is exercised, society suffers harm, which is contrary to public policy. Even in the IADC model contract, mutual indemnity is not subject to the exception of gross negligence.[83] Most classic models only state whose duty it is to remedy damage as opposed to establishing contractual strategies that could de-incentivise bad oilfield practices that could lead to damage or loss.

Among subcontractors, liability is still without recourse to the fault of the parties, which is contrary to public safety, public interest and public policy. Public interest seeks to encourage all participants in the oil industry to exercise the care that is required to protect society. This thesis shows that the oil industry practice is not compatible with public policy. Public policy

[79] Montara Commission of Inquiry, 'Report of the Montara Commission of Inquiry' (Commissioner David Borthwick AO PSM, June 2010) < http://www.iadc.org/wp-content/uploads/2016/02/201011-Montara-Report.pdf > accessed 20 June, 2015; National Commission on the BP Deepwater Horizon Oil Spill (n 1).
[80] Rawle King, *Deepwater Horizon Oil Spill Disaster: Risk, Recovery, and Insurance Implications (*Congressional Research Service, R41320, 2010).
[81] Ibid.
[82] See Chapter five on the Macondo blowout.
[83] Offshore Daywork Drilling Contract of the International Association of Drilling Contractors Model form, Article 911(a); Cameron (n 7) 208.

requires a party to take responsibility for its seriously wrongful conduct that results in harm to society during petroleum operations. While a party may trade-off his responsibility arising from mere negligence, this study finds that it is a violation of public policy to trade-off responsibility for grossly negligent conducts as doing so will incentivise harmful practice.

In order to address the identified challenge in the practice of risk allocation, this study first provides a definitional pathway for gross negligence to be applied in contracts as a term of art in all jurisdictions. This pathway is based on the finding that gross negligence is not a term of art. In arriving at a working definition for gross negligence, negligence is distinguished from gross negligence. The former consists of a mere departure from the usual standard of conduct of a reasonable person (good oilfield practice), whereas the latter involve a serious, unusual and marked departure from the standard oilfield practice expected in the circumstance.[84] Negligence is allowed in risk allocation because of the positions of the parties and the nature of the industry. That is, the perceived financial capacities of the parties and the possible financial upside they will get. In this regard, this study proposes that gross negligence is conduct that falls far below the standard of a reasonable person in the circumstance.

Other essential findings of this study are that, in the oil industry, only the wrongful conducts of the senior management staff of a company are adjudged grossly negligent since they are deemed to be acting on the company's behalf. This study argues that gross negligence is not only limited to the wrongful conduct of senior management personnel but includes acts occasioned by employees of a company, acting within the scope of their employment for the benefit of the company.[85] It notes that gross negligence is a systemic thing and not just an act. The severely wrongful conduct flows from management's poor decision and safety culture and is evident in the actions of employees. For instance, in the Macondo oil spill, the Chief Counsel's report identified some technical risk issues regarding the design, execution and testing of the Macondo well, and traced the lapses identified to a primary failure of management. The report anchored this management failure on the '*lack of a culture of leadership responsibility*'.[86] From an analysis of the corporate test, a company is responsible for the gross negligence of its employee, as the action is deemed to be that of the company.[87]

[84] Midland Bank Trustee (Jersey) and others v Federated Pension Services Ltd [1997] 2 LRC 81.
[85] William T. Curtis, 'Liability of Employers for Punitive Damages Resulting from Acts of Employees' (1978) 54 Chicago-Kent Law Review. 829, 848; In re: Oil Spill by the Oil Rig "Deepwater Horizon" in the Gulf of Mexico, on April 20, 2010, findings of facts and conclusions of law, Phase I trial. Hereafter called "Phase I Trial".
[86] National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling, *Macondo: The Gulf Oil Disaster* (Chief Counsel Report, 2011). Hereinafter referred to as the "Chief Counsel Report".
[87] Phase 1 Trial, Per Judge Carl Barbier (n 85).

The reason companies are responsible for the conducts of their employees is not only dependent on the principle of vicarious liability, but to incentivise corporations to exercise care in hiring practices, employee supervision, safety culture, and risks perception etcetera. This study notes that gross negligence is a corporate wrong that could arise from management's poor perception to risk, inadequate staff supervision, compromised safety culture, flawed decision-making process, organizational malfunctions and short-sightedness, and a culture of complacency among others things.[88] These are all reflected in the actions of employees when a downside occurs, resulting in damage to property, death or injury to people and pollution damage. This damage affects the public, as a result, public policy is interested in deterring and making a party liable for its severely awful conducts, which result in harm or loss.

In addressing the findings and other identified challenges in the practice of risk allocation through mutual indemnity, this study first proposes that all the relevant parties to a contract imagine that they are behind a veil of ignorance, without knowing which group they will belong to after drafting the contract. In this regards, Rawlsian justice is necessary. This study employs other vital concepts to facilitate a rethink of the industry practice. It blends the fairness and proportionality elements in distributive justice and uses liability cap to assist in making mutual indemnity subject to the exception of gross negligence. Thus, aligning with public policy objectives in practical terms. The fairness concept in distributive justice is to the effect that it will be inequitable to allow a party that has occasioned gross negligence to walk away without taking some form of responsibility. The proportionality element canvasses the need to align the responsibility with the benefit derivable from the activity. Moreover, this is a vital element that implements the cap, as liability for gross negligence will depend on the benefit the party will derive. All these concepts converge to achieve a single purpose – to make a party take responsibility for its severely awful conduct in any way, shape or form.

This research shows how receiving indemnification for gross negligence runs contrary to public policy and encourages moral hazard. This position was reached after evaluating the practice of risk allocation in the four jurisdictions to determine if it promotes the public policy of deterrence and liability for bad oilfield practices. Upon evaluation, this study advances that mutual indemnity should be subject to the exception of gross negligence on the part of the party that caused the harm or loss, to de-incentivise moral hazard and encourage good oilfield practices that could help the prevention of harm in drilling contracts for alignment with public

[88] Chief Counsel Report (n 86).

policy. Where mutual indemnity is made subject to gross negligence in contracts, it will make a party at fault liable in damages. It means that a contractor could be liable for property or well pollution damage arising from its gross negligence. However, this should be subject to a cap, which is a function of the proportion of his benefit, an adapted element of distributive justice as canvassed in this study. While this appears contrary to the oil industry practice, this study presents an extensive argument using distributive justice as the basis for which a party, whose gross negligence occasioned harm or loss, should bear liability.

This study argues that it is against public policy to remove incentives that promote accident-prevention measures, as this could increase the risk of accidents that could harm society. When the practice of risk allocation was tested on a large scale, there was a noticeable lacuna in the risk allocation practice according to the BP Commission's report.[89] The BP report revealed a culture of complacency and several corporate gross negligence, which were heightened by the industry practice of non-regard to a fault in risk allocation. The Commission even concluded that *"Because regulatory oversight alone will not be sufficient to ensure adequate safety, the oil and gas industry will need to take its own, unilateral steps to increase … safety throughout the industry, including self-policing mechanisms that supplement governmental enforcement".*[90] From the BP Commission report, it could be seen that the conduct of parties, their causal connection, and the impact of the spill on third parties suggest a rethink of the risk allocation practice. This is what this study set out to achieve.

This study proposes the use of oil and gas regulations, model contracts or model PSCs as tools to make mutual indemnity subject to the exception of gross negligence, to enforce the requirement of public policy in risk allocation contracts. This proposal will exclude the application of indemnity contracts as a shield against liability for grossly negligent conduct. It will also prevent any possible trade-off against the regulatory requirement, and the use of undue advantage by a party over another in the bargaining process. To do this, the HG can insert specific clauses in the oil and gas law or the model clause/model PSC agreement, indicating the existence of liability for gross negligence. It could also insert clauses that provide for the application of liability cap for gross negligence, to guide the well operator and others in the contracting process. This clause will determine the cap on liability for gross negligence concerning risks that are not originally allocated to a party who occasioned the gross negligence. It will also facilitate a ban on indemnity below the stated cap. Thus, facilitating the

[89] Report to the President (n 1).
[90] Ibid, vii.

proportionality element of distributive justice.[91] In this way, a contractor, who is by law not responsible for damage, is not made a duty holder.

It is believed that this proposal will transform the industry practice of risk allocation and incentivise a corporate behaviour that is geared towards a culture of responsibility and good oilfield practice in drilling operations. It will also put all the parties in a just or fair position on the other side of the veil. The determination of conduct as grossly negligent will be a matter of fact before the court, evaluated alongside good oilfield practice to determine if the conduct was far below the required oilfield standard. The '*far below test'* will be the guide.

1.2 The research problem

Under tort law of negligence, liability is anchored on the polluter pays principle with the aim of preventing and/or remedying the harm. Although risk allocation in the oil industry is based on contract and not a tort, there is a need for the contract to promote public policy and encourage good oilfield practices that prevents harm since offshore drilling could result in injury, property damage or pollution damage. Obligations create an incentive to exercise care, while the absence of obligation is a disincentive to employ standard oilfield practices that could facilitate the prevention of the risk of harm to others. In the oil industry, risks are contractually allocated in a way that it gives a party a disincentive not to take care of other aspects of risks that may impact the drilling operations.

The problem with the practice is that mutual indemnity agreements are not subject to the exception of gross negligence. As a result, it allows one party to indemnify the gross negligence of another party, thus, discouraging good oilfield practice that facilitates the prevention of harm and losses during drilling operations. There is no obligation to make mutual indemnity subject to gross negligence. It is rather an optional choice for parties. This choice is not compatible with public policy which seeks to deter and punish seriously wrongful conducts. This non-recourse to the fault of parties does not create a duty to prevent the harm that could impact the other contractual party or the society. Albeit, where liability arises from gross negligence, subject to a cap, parties will exercise more care. This cap aligns with the proportionality element of distributive justice, which considers benefit and burden.

The moral hazard problem created by the practice of indemnification closely follows the absence of incentive to prevent harm. Moral hazard is the phenomenon that an insured injurer

[91] Detail discussions are contained in chapter eight of this study.

changes its behaviour the moment a particular risk is removed from it.[92] The exposure to risk which the injurer suffers is the needed disutility that he requires to incentivise him exercise care.[93] This argument is founded on the fact that where a particular risk is entirely taken away from an injurer and shifted to another person, the incentive to take care that was given to injurer by the deterrent effect of paying compensation in the event of an accident, will be lacking.[94]

An attempt to curb the moral hazard problem was the introduction of cave outs or liability triggers in the event of gross misconduct, deliberate sabotage or mischief.[95] Where a party is grossly negligent during drilling operations, some indemnity clauses will regard this as an exception to the general rule of no reference to the fault of the party that caused the harm. However, the problem is that the term 'gross negligence' is not a term of art. In jurisdictions where it is recognised, it has no clearly defined legal standard for application as cave out. What this means is that for jurisdictions where it is recognised, it could be impossible to demonstrate that a party was grossly negligent for the exception to the general rule to apply. In these circumstances, the practice of risk allocation in the oil industry would facilitate moral hazard as a party may never be held responsible for gross negligence. The whole essence of the public policy argument in this study is for a party to take responsibility for its severely wrongful act to serve as a deterrence against the bad oilfield practice.

Literature abounds on the language to be used in drafting risk allocation clauses, and the need for parties to use precise words to reflect what they mean in their contracts. However, there is a dearth of literature on how mutual indemnity could be made subject to the exception of gross negligence and how regulation and contract could aid its application to align with public policy. Again, literature is scarce on approaches that could incentivise good oilfield practices and discourage moral hazard for responsibilities arising from risks a party is not contractually liable to assume. This new challenge has been brought into focus by the catastrophic incident in the Gulf of Mexico.[96]

Standard industry risk allocation models exist in the hydrocarbon industry and are contained in Association of International Petroleum Negotiators (AIPN), International Association of Drilling Contractors (IADC), the Leading Oil and Gas Industry Competitiveness (LOGIC)

[92] Michael Faure and Ton Hartlief, 'Remedies for Expanding Liability' (1998) 18(4) Oxford Journal of Legal Studies 681, 684.
[93] Ibid.
[94] Ibid.
[95] Choudhury (n 47) 8.
[96] Cameron (n 7) 207.

standard form contracts etc. Albeit, none of these risk allocation models[97] made mutual indemnity subject to gross negligence. Thus, leaving unanswered, questions in public policy, moral hazard, distributive justice, cost efficiency, and good oilfield practice. Accordingly, this study proposes a rethink of the risk allocation practice in the oil industry, especially behind a veil of ignorance.

1.3 Research question

In an attempt to address the issues raised, this study put forward the following question(s) for examination. The main research question in this study is:

> ***How can the allocation of risk through mutual indemnity be subject to the exception of gross negligence in order to make the operator and contractor offshore drilling contracts align with public policy?***

From the above, three sub-questions could be distilled

1. ***What is the current practice of risk allocation in the offshore oil industry?***
2. ***Does the practice conform to public policy concerns?***
3. ***How will parties' responsibility for gross negligence lead to closer alignment of the overall responsibility with public policy?***
4. ***How can regulation enforce/support the public policy of preventing harm arising from gross negligence amongst participants in offshore drilling contracts?***

1.4 Research aim and objectives

The research aims to suggest approaches that could make mutual indemnity agreements subject to the exception of gross negligence in contract, for the sake of public policy. The essence is to put a check on grossly negligent conduct and stop participants from moving the financial consequence of their seriously wrongful act to another person. In exploring this aim, this study will identify and determine how an operator and a drilling contractor can contractually allocate risk in a manner that could reduce or eliminate risks occurrence and discourage moral hazard. The underpinning here is that, when certain conducts that could result in harm are not discouraged, they will lead to an exercise of less care. Thus, society will suffer harm or loss, which public policy seeks to prevent. This study argues that a rethink of the risk allocation

[97] LOGIC aims to reduce cost and simplify industry procedure through its Cost Reduction in New Era (CRINE) initiative, but it has not re-assessed its pollution clauses in the model contracts. It acknowledges the need for a cost-effective risk allocation but fails to provide for a realistic risk allocation to address the pollution liabilities, even when the Macondo incident has forced and is still forcing regulatory changes that will affect entities in the industry.

practice in the oil industry will promote public policy where mutual indemnity is subject to gross negligence.

To achieve the stated aim, this study will evaluate the practice of risk allocation in selected jurisdiction to achieve the stated aim. The crux of which is to determine whether or not they apply public policy considerations in risk allocation in model clauses and private contracts. It will also examine available literature on the nature, practice, and rationale of risk allocation in the offshore hydrocarbon industry for a clear understanding of the risk issues and ensuing liabilities.

1.5 Significance of the study

The significance of this study lies in the fact that it examines, addresses and will douse the risk and liability tension between operators and contractors in offshore drilling operations. It also identifies and analyses the real challenge with the practice of risk allocation, and suggests practical steps aimed at solving the problem. Again, the study identifies how a contractual practice could be used to incentivise the exercise of care to promote good oilfield practices that could prevent or reduce the risk of harm and loss during drilling operations. Furthermore, the study develops a contractual principle that a party whose gross negligence resulted in harm ought to be responsible for the outcome. Nevertheless, this responsibility should be subject to the proportion of benefit obtained from the activity - a cap. This study provides a pathway for rethinking risk allocation to encourage the prevention of harm or loss in drilling operations.

This study is also significant as it defines gross negligence to apply as a term of art in the oil industry. This definition of gross negligence has eluded courts in several jurisdictions. This definition will enable parties to determine what gross negligence is for liability to attach when an act is adjudged to be grossly negligent. This study will set the basis for risk allocation on clearly defined legal and contractual principle and concepts (ex turpi causa non oritur actio) and show how distributive justice supports the allocation of the burden of mutually beneficial but harmful activity. A noticeable significance of this study is the fact that it enjoins all participants in the contractual mix to apply the Rawlsian veil of ignorance in risk allocation.

1.6 Methodology of the study

The methodology applied in this study is comparative in approach. Through it, this study examined the practice of risk allocation in four selected jurisdictions. Two of the jurisdictions applies the licensing system of award of exploration rights while the other two uses a PSC

form. The main focus of the comparison is the private and model form contracts used in these jurisdictions to allocate risks between a well operator and a drilling contractor. The research noticed similarities and differences in practice. A significant similarity in all the private contracts and model form is that the mutual indemnity clauses are not subject to gross negligence in the event of an accident. Again, the public policy of encouraging good oilfield practice to prevent harm is absent in the risk allocation approach. A difference is that, in one of the private contracts, mutual indemnity for pollution damage is to apply subject to gross negligence.

The meaning of the concept of gross negligence was also examined in the jurisdictions mentioned and its application or otherwise considered. The comparative analysis was done with the aid of public policy, while distributive justice was used as a tool to show the basis for a party at fault could bear the burden of its gross negligence various classic models and private contracts. The reason for selecting the four countries is because they are resource-rich countries with enormous oil and gas activities taking place in their various countries

The doctrinal approach was also used to analyse the basis for the development and application of mutual indemnity agreement in the oil industry; and whether or not the practice of risk allocation should evolve as events change in the oil industry

1.7 Analytical tool

This study employs an adapted form of distributive justice as a basis or justification for risk to be assumed by a party whose gross negligence results in harm or loss during drilling operations. This adaptation posits that the burden of mutually beneficial but harmful activity should be borne by those who are causally connected to the harm. A party who take the benefit that results from an activity should also take burden, especially when the party's gross negligence occasioned the burden. However, it notes that the burden should reflect the benefit reaped from the activity. This proposal is based on the proportionality element of distributive justice, which supports a cap on liability for gross negligence based on the party's benefit.

As will be seen in this study, distributive justice sets the platform for rethinking the practice of risk allocation, which is also in tandem with public policy consideration. This rethinking is essential because, if public policy proscribes gross negligence and regulation enforces the prohibition, the party at fault would bear the burden of gross negligence. Nevertheless, this will be subject to the proportionality element in distributive justice. Distributive justice as an

analytical tool, therefore, provides the basis for gross negligence to be borne by the party at fault, as a disincentive for bad oilfield practice and harm to society or loss to a contracting party. This form of liability accords with the goal of every environmental law regime, which is to prevent harm to man and his environment. Again, it aligns with the public policy objective of deterrence and liability as advanced in the polluter pays principle. Even in the law of contract, a party is not allowed to benefit from his wrong, contrary to public policy – ***ex turpi causa non oritur actio, or ex dolo malo non oritur actio***. Distributive justice strengthens public policy consideration through the benefit and burden postulation.

The concept of distributive justice has been adapted to mean burden should be borne based on fairness, proportionality, and the benefit principle.[98] Where the burden of a risky activity such as drilling operations is distributed following the benefit obtained, it enables distributive justice among players. Parties could reduce the same into a contract and share the burden of what has been created following the benefit they reap from the risky activity.

The fairness element supports the argument[99] that the burden of mutually beneficial but risky or harmful activities should be distributed justly among the parties that occasioned it. It will be unfair to pass on to another person, the liability arising from the grossly negligent conduct of a party. To do so will de-incentivise good oilfield practice and work against public policy. The proportionality element notes that the burden to be borne by each party should reflect the benefit reaped. This proportionality element justifies the basis for the use of liability a cap to limit the burden of a party whose conduct is grossly negligent during petroleum operations. The proportionality element also aligns with the public policy objective of taking responsibility for seriously wrongful conducts. This is because it still makes a party responsible for gross negligence to assume liability for its conduct in any way, shape or form. The rationale behind the choice of distributive justice as the analytical tool is based on the fact that most offshore accidents are the direct result of contributory negligence. So those who contribute to the problem should also fix it.

1.8 Scope of the study

This study centres on risks allocation among entities (operators and drilling contractors) in the oil and gas industry and the evolving perception of risk exposure in the industry. The study examines how liability for property damage, injury or loss of life, and pollution damage

[98] Keating (n 75) 193.
[99] Ibid 195.

pressured the entities in the industry to fashion out means of allocating risks. It also looks at how recent accidents and spills have exposed entities to new risks during drilling operations, and how these unsettling risks should be handled to douse entities concerns. It finally focuses on the allocation of risk without regard to gross negligence and proposes a paradigm shift in the industry practice. The study recognises parties' freedom to contract but note that this freedom should be exercised in the interest of all, especially behind a veil of ignorance.

The choice of two Concession and two PSC regimes for comparison is because most model contracts are used in either Concession or PSC regimes. Although other petroleum regimes apart of the two above were not considered, it must be noted that the findings of this study that mutual indemnity is not subject to the exception of gross negligence, is the same findings in other regimes where risk service agreement or other forms of petroleum agreements are used. The proposal to use regulation to align with the industry practice of risk allocation can still be applied in other forms of petroleum agreements between a host state and an IOC. The choice of country is based on top producers of hydrocarbon with long a history of hydrocarbon operations. Other forms of contracting such as Service Contracts, Buy-Back contracts, etcetera, exist, but they were not considered in this study.

The study is not about the wording or drafting, or interpretation of mutual indemnity agreements. It is about how the industry has allocated risks in the past, without reference to the fault of a party, and in most cases, without regard to gross negligence. It is also about the implication of this practice in the pursuit of an accident-free drilling operation. As a result, this study proposes a rethink in the practice of risk allocation between operators and contractors in offshore drilling contracts to incentivise good oilfield practices that could ensure harm-prevention, discourage moral hazard and bring about distributive justice.

1.9 Structure of the Thesis

This thesis is structured into nine chapters. Chapter one presents a general background to the study, providing a basic understanding of the issues in risk allocation. It states the research problem and poses research questions – main and subsidiary. It further highlights its aim, significance and justification, the framework for analysis and a methodology. Chapter two examines some concepts used in risk allocation, analyses causation and further presents some scholastic discussions regarding risk allocation in the offshore oil industry. Chapter three focuses on gross negligence in the oil industry, defining it to apply as a term of art in the oil industry. It achieves the definition by looking at the historical background of gross negligence

and understanding the philosophical underpinning of parties. Chapter four presents the analytical lens (Distributive Justice), as a basis for which parties could assume liability for their wrongful conduct and note that a cap on liability should apply to gross negligence between the operator, drilling contractor, and subcontractors. It examines the meaning and application of distributive justice and demonstrates the relationship with a private contract. Chapter five considers the drilling environment and its implication on parties' liability. It also discusses some pollution vignettes and the Macondo incident in the GoM. Chapter six examines the practice of risk allocation under two Concession regimes (UK and US). Chapter seven analysis risk allocation under two Production Sharing Contract regime (Nigeria and Indonesia). Model forms and private contracts were the main focus of all these regimes. Chapter eight proposes a rethink towards the practice of allocating risk without recourse to the fault of gross negligence. It examines the Rawlsian veil of ignorance and presents a possible application of risk allocation behind a veil of ignorance. Chapter nine concludes the study by stating that mutual indemnity should be subject to gross negligence and presents contributions this study has made with implications arising from its proposal. This study posits where a party is allowed to benefit from its gross negligence; it takes away the incentive to exercise care for a risk that is not contractually that of the party at fault. When wrongful conducts are made to result in liability, it could discourage moral hazard, and incentivise good oilfield practice that could prevent damage or losses to society and a contractual party during drilling operations. Distributive justice explains the basis for risks to be shared in a proportional manner that is in tandem with the benefit reaped from the activity.

Chapter 2 : Terminologies and discussions relating to contractual risk allocation in the oil industry.

"Contractual risk allocation in the hydrocarbon industry is a risk management technique[100] effectively applied through the use of mutual indemnity, exclusion or limitation of liability clauses".

2. 0 Introduction

This chapter seeks to examine the conceptual meaning of some key terms applicable to risk allocation in the offshore oil and gas industry and to examine the extant scholastic direction regarding risk allocation. This conceptual examination aims to provide a clear explanation of these terminologies for basic understanding, while the discussion will show the gap that is yet to be looked at, with a view to addressing the same in the study. This chapter will also examine the causal connection of parties to offshore damages and highlight the need to discourage moral hazard through incentive-driven drilling agreements.

2.1 Definition of terms

The liability for loss or damage during offshore operations in the oil industry will continue to pressure operators and contractors to allocate risks among themselves. The pressure on contracting parties will even become more serious as hydrocarbon activities advance into more difficult areas, creating possible room for damage in a complex contracting chain.[101] An examination of certain key terms, concepts and the role and position of the parties involved in offshore activities is vital in understanding the entire offshore drilling arena.

2.1.1 Risk and risk allocation

One of the main focus of an insurance policy is to deal with risk.[102] However, insurance theorist views the concept of *risk* from different perspectives.[103] Risk has been described as the possibility or chance of loss that can be mitigated through preventive measures; the distribution of actual from the expected result; or the probability of an outcome different from the

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[100] Mustafa S Syahrir, 'Liability and Risk Control through Effective Clauses in Oil and Gas Service Contracts' (2004) 5 *OGEL* 7< www.ogel.org/article.asp?key=1707 > accessed 25 April 2015.

[101] Emma Wilson and Judy Kuszewski, 'Shared Value, Shared Responsibility: A New Approach to Managing Contracting Chains in the Oil and Gas Sector' (*International Institute for Environment and Development* (IIED), 2011) <http://pubs.iied.org/pdfs/16026IIED.pdf> accessed 24 February 2015. As the search for hydrocarbon move into complex areas such as Deepwater and the Arctic, there are concerns about catastrophic pollution, response and containment, remediation, and liability for a responsible party.

[102] Emmett J Vaughan and Therese M Vaughan, *Fundamentals of Risk and Insurance* (10th edn, John Wiley & Sons 2007) 2.

[103] Ibid.

anticipated outcome.[104] Loss and indeterminacy[105] are common elements which can be found in most of these definitions.

Risk and uncertainty are closely linked, but a distinction exists between them. Through John Keynes and Frank Knight, the concept of uncertainty made an in-road into economics. The duo believed that a distinction exists between risk and uncertainty. Uncertainty refers to an exposure that cannot be measured or quantified, giving the absence of predictability of the future outcome.[106] Uncertainty exists where multiple alternatives could result in a particular outcome, but the possibility of the outcome is unknown[107] because of insufficient information or knowledge about the present condition. Hence, it is difficult to predict or define the future outcome. Man has an incomplete description of the state of the world. As a result, the sure knowledge of what might transpire in the future is lacking.

Consequently, possibilities cannot be applied to the outcomes because the probabilities are not precise. In other words, uncertainty cannot be controlled, mitigated, or assigned because the possible outcomes are unknown. In the area of contract law, uncertainty has been used to describe the absence of a basis for determining whether an agreement has been kept or breached.[108] That is, where there is no basis to determine if an outcome will be either adverse or favourable (loss or gain), uncertainty exists.

On the other hand, the risk may result in loss or gain. The knowledge of the likely result of risk is because it can be measured, and there are chances that the outcomes are known. The probability indicator is applicable and provides a basis for risk management, cost/benefit analysis, budget planning, etc., whereas, there is no objective basis for risk management, cost/benefit analysis and other control techniques in uncertainty.[109] Unlike uncertainty, risk can be controlled, mitigated and assigned if proper measures are put in place, and the necessary precautions are taken. F. Knight notes that risk provides a basis for seeking insurance, whereas, a person cannot insure against *u*ncertainty. The difference between risk and uncertainty is vital in the insurance of accidents, as unpredictability results in uncertainty to calculate the exposure

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[104]Ibid.
[105] Ibid.
[106] Surbhi S, Difference between Risk and Uncertainty, (*Key Differences*, 27 January 2016) <https://keydifferences.com/difference-between-risk-and-uncertainty.html> accessed 25 April 2019.
[107] John M. Keynes, *A Treatise on Probability, The Collected Writings of John Maynard Keynes, Vol. VIII*, (London: Macmillan, 1921); Frank H Knight, *Risk, Uncertainty and Profit* (Dover Publications, Inc. 2006) 233.
[108] Alex Y. Seita, 'Uncertainty and Contract Law' (1984) 46 University of Pittsburgh Law Review 75.
[109] Future Learn, Decision making in a complex and uncertain world: Risk and Uncertainty, (University of Groningen) <https://www.futurelearn.com/courses/complexity-and-uncertainty/0/steps/1824> accessed 25 April 2019.

to the loss.[110] The concept of risk, as it applies to offshore accidents, indicates a situation where exposure to loss exists.

In simple terms, risk could be described as an exposure to danger. Some scholars view risk as to the probability that surrounds an event, and this probability is an indispensable and unavoidable part of the business.[111] To others, it is a "hazard, an exposure to misfortune or chances of negative consequences" or the "possibility of an event happening, accompanied with consequences if it does happen".[112] Risks may be categorised in several ways to wit: dynamic and static risks; speculative and pure risks; fundamental and particular, and so on.[113] The concept of risk that is closely linked to this study is the fundamental and particular risks. A fundamental risk is related to losses that affect a large number of people, while a particular risk is associated with a specific cause that happens in particular cases such as oil pollution and fire. Risk is a negative concept in a project that requires proper management. While the above description may have captured the meaning of risk from a construction perspective, this same description applies to the hydrocarbon industry. The risk involved in a particular project determines the value of the contract and the parties involved.[114]

It has been argued that although risk can be managed, diminished, transferred, or accepted, it cannot be ignored.[115] It is so because every project is risk-ridden. Some scholars note that risk allocation is the practice of defining and assigning possible future losses and gains for a variety of hypothetical situations should a downside occur.[116] As a part of risk management strategy, risk is commonly defined through the contractual document. In this regard, a contract can thus be considered as a trade-off between the contractor's price for undertaking the work and his

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[110] Frank H Knight, *Risk, Uncertainty and Profit* (Dover Publications, Inc. 2006) 233.
[111] Eric Banks, *Catastrophic Risk: Analysis and Management* (John Wiley & Sons Ltd 2005) 3.
[112] Peter Megens, 'Different Perspective of Construction Risk – How should it be allocated?' (1996) 15(4) AMPLA Bulletin 179.
[113]Vaughan and Vaughan (n 102) 3.
[114] Patson Wilbroad Arinaitwe, 'Risk Allocation in Oil and Gas Service Contracts: A Comparative analysis of U.S. Outer Continental Shelf and U.K. Continental Shelf Jurisdictions' (*Admiralty and Maritime Law Committee Newsletter*, Winter 2014) <http://www.sebalulule.co.ug/wpcontent/uploads/2014/02/Risk_allocation_in_oil_and_Gas.pdf > accessed 15 January 2015.
[115]Michael Latham, 'Constructing the Team: Joint Review of Procurement and Continental Arrangement in the United Kingdom Construction Industry' (Final Report, July 1994) <http://www.cewales.org.uk/cew/wp-content/uploads/Constructing-the-team-The-Latham-Report.pdf > accessed 20 April 2015.
[116] Chi K Lam and others, 'Modelling Risk Allocation Decision in Construction Contracts' (2007) 25(5) *International Journal of Project Management* 485.

willingness to accept both the controllable and uncontrollable risk".[117] This should, however, conform to public policy considerations despite the freedom to contract.

Contractual risk allocation in the hydrocarbon industry is a risk management technique[118] which is effectively applied through the use of mutual indemnity, exclusion or limitation of liability clauses in the upstream hydrocarbon industry. It is essential in the formation of an efficient contract between an operator and a contractor.[119] An efficient contract is a contract that improves the position of both parties or improves the position of a party without making the other party worse off.[120] It considers the risk involved to address the challenges of the unique operating environment and the huge costs that may result from negligible acts or omissions.[121] Risk, as used in this study, refers to various exposures which operators and contractors face during offshore drilling operations.

2.1.2 Pollution damage

When viewed from the Law of the Sea perspective, pollution is said to have occurred when man, either directly or indirectly, introduces substances into the marine environment that results in damage to living resources, create a threat to human health, and interference with marine activities, impaired water quality of the sea and reduced amenities.[122] An essential aspect of this definition is the incorporation of the threat to biological diversity as an extended definition of pollution. As a concept, pollution is an aspect of environmental harm.[123] Oil pollution may result in harm to the flora, fauna, and other elements of the affected ecosystem.[124] From a legal perspective, pollution arises when environmental changes are measured with the damage or harm which have occurred.[125]

Pollution damage arises from flared gas, negligent or accidental discharges of petroleum products, offshore or onshore. Pollution damage in shipping "means loss or damage caused

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[117] Ibid 485.
[118] Syahrir (n 100) 7.
[119] Kirsten Bindemann, 'Production Sharing Agreements: An Economic Analysis' (*Oxford Institute for Energy Study WPM,* October 1999) 30 < https://ora.ox.ac.uk/objects/uuid:3ba0589f-8c3a-43b9-b034-24f7dae7e0c5 > accessed 21 April 2015.
[120] Ibid 29.
[121] Sharon Wilson, 'Contractual Allocation of Risk in Upstream Oil and Gas Projects' (2008) 3 Energy Source 3.
[122] Barbara Kwiatkowska-Czechowska, 'State Responsibility for Pollution Damage Resulting from the Exploration and Exploitation of Seabed Minerals' (1979-80) 10 Polish Yearbook of International Law, 157, 168.
[123] Patricia Birnie and others, *International Law and the Environment*, (3rd edn, Oxford University Press 2009)188.
[124] Ibid.
[125] David Ong, 'The Relationship between Environmental Damage and Pollution: Marine Oil Pollution Laws in Malaysia and Singapore' in Michael Bowman and Alan Boyle (eds), *Environmental Damage in International and Comparative Law: Problem of Definition and Valuation* (Oxford University Press 2002) 196.

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. It also includes the costs of preventive measures and further loss or damage caused by preventive measures".[126] While this definition applies to pollution from ships, it is not only vessels that cause marine pollution. The definition of damage from vessels alone is, however narrow[127] as drilling activities could seriously occasion offshore and onshore pollution damage. For this study, pollution damage would include any action by man, directly or indirectly, that introduces substances into the marine environment or ecosystem, which causes harm to the environment. While pollution harm is one aspect of damage that could arise during drilling operations, other losses relate to damage to property and injury to personnel. They do not require further explanation as they are easy to understand.

2.1.3 Catastrophic pollution damage

A catastrophe is a single event disaster that results in a large amount of damage, or that involves many victims.[128] The definition of a single-event disaster was expanded to include the gradual accumulation of little incidents, facilitated by the same catalyst, resulting in the same scale of loss/damage.[129] A catastrophe, according to an online dictionary, is "*a great, and often sudden calamity*".[130] Any natural or manmade event with low frequency and high severity risk – that rarely occur, but have the possibility of creating substantial losses – is termed catastrophic risk or disaster.[131] Pollution or oil spill is humanmade as it emanates from drilling or hydrocarbon production. The frequency of catastrophic spills, especially offshore spills, is low while its severity may be high.

Catastrophic pollution damage, therefore, is damage caused by an oil spill, the frequency of which is rare but the severity of losses to man and the environment may be considerable. It usually results in financial losses and environmental damage. The Montara and Macondo disasters are classic examples of catastrophic oil spills. It has been advocated that risks with an

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[126] International Convention on Civil Liability for Oil Pollution Damage (Brussels, 29 November 1969), Article 1(6), entry into force 1975.
[127] Michael Mason, 'Civil Liability for Oil Pollution Damage: Examining the Evolving Scope for Environmental Compensation in the International Regime' (2003) 27(1) Marine Policy 1.
[128] Veronique Bruggeman, *Compensating Catastrophe Victims: A Comparative Law and Economics Approach* (Kluwer Law International, 2010) 7.
[129] Banks (n 98) 5.
[130] The Free Dictionary, 'Catastrophe' <http://www.thefreedictionary.com/catastrophe> accessed 22 April 2015. It could also mean a violent and sudden change in a feature of the earth. Merriam Webster Dictionary, 'Catastrophe' <http://www.merriam-webster.com/dictionary/catastrophe> accessed April 20 2015.
[131] Banks (n 111) 4.

environmental consequence are better allocated using a shared mechanism as environmental impact is usually severe, although the probability of occurrence is low.[132]

From a general perspective, catastrophic risk can affect several aspects of society, such as economic, scientific, human, and environmental aspects. Vulnerability is a crucial consideration in catastrophic risk. Vulnerability is the level of exposure man and the environment face when a catastrophe occurs or has the possibility of occurring. It also represents the probability of losses arising from damage.[133] Catastrophes are measured by economic, social and physical severity in order to ascertain the probable and actual extent of the damage.[134] Pollution damage and the resulting liability has set operators and contractors at opposite sides, with operators seeking to transfer more risk to contractors, while contractors are opposed to new risk arising from the burden of offshore pollution damage. A point to note is that gross negligence and catastrophic damage are not automatically connected because of the extent of damage or liability. For our purpose, gross negligence relates to the conduct of the party at fault and not the extent of the damage or liability.

2.2 Key participants in the contractual matrix

A. Co-venturers

A co-venture arises from a JOA. The practice in the oil and gas industry is for co-venturers to enter into an unincorporated contractual joint venture agreement where participants covenant to be individually or severally liable to the extent of their percentage holding capacity under the relevant licence. They also agree to pay indemnity according to the extent of their percentage holding in the event of a downside during petroleum operations.[135] The percentage holding of the co-venturers in the Macondo disaster was the following: BP (65%), Anadarko (25 %), and Mitsui MOEX (10%),[136] and this represents the extent of individual shares of equity or costs and liabilities in the event of a downside.

Under this unincorporated joint venture arrangement, the party with the highest shareholding capacity is appointed an operator responsible for the day to day activities of the joint venture.

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[132]Yongjian, Ke and others, 'Preferred Risk Allocation in China's Public-Private Partnership (PPP) Projects' (2010) 28(5) International Journal of Project Management 489; Li Bing and others, 'The Allocation of Risk in PPP/PFI Construction Projects in the UK' (2005) 23(1) International Journal of Project Management 25.
[133] Banks (n 111) 2.
[134] Ibid.
[135] Holdway (n 61) 245.
[136] Natural Gas Intelligence, 'Anadarko: BP-Mitsui Settlement a Positive Step' (*Natural Gas Intelligence*, 23 May 2011) < https://www.naturalgasintel.com/articles/86826-anadarko-bp-mitsui-settlement-a-positive-step> accessed 27 July 2016.

However, the operator's activities are subject to the control and supervision of the joint operating committee,[137] which consists of all participating co-venturers. The joint operating committee meets from time to time to review jobs done by the operator and to give approval or authorisation for future operations.[138] Typically, an operator is appointed under a *"no gain, no loss"* principle. What this means is that the operator should neither make an extra profit nor bear additional risk by acting in its capacity as a responsible party for the operation. Co-venturers own assets purchased for the joint venture as tenants in common and hydrocarbon produced from the operations in their shareholding capacities.[139]

Fundamentally, in a JOA, the "no gain no loss" principle presupposes that the operator's liability is restricted except for gross negligence. JOA partners will, therefore, indemnify the operator for liabilities or cost incurred by the operator that did not arise from gross negligence.[140] In addition to gross negligence, the operator will not be indemnified where the loss or liability resulting from a non-consent by a participant(s) or sole risk operation by the operator.[141] A sole risk situation occurs where a participant vetoes a programme but was overruled by the majority of the participants, and the participant still proceeds to carry out the programme as wished.[142] Sometimes the JOA will exclude the operator's liability for consequential loss[143] or anything done or omitted to be done by the operator's affiliates in the conduct of the joint venture operations.[144]

It must be stated, however, that the Macondo oil spill has exerted new pressures on the contractual relationship of co-venturers based on the *"no gain no loss*" principle. The oil spill has reawakened party's liability consciousness, thus making inevitable, a reconsideration of the likely imposition of substantial civil and criminal liabilities for oil pollution damage. Criminal liabilities could emanate from the violation of the health, safety and environmental regulations. While civil liabilities may be indemnified, criminal liability cannot be indemnified

[137] Junaidu B Marshall, 'Joint Operating Agreements in the Oil and Gas Industry: The Consequence of Sole Risk and Non-Consent Clauses to Joint Operations' (2016) 6(10) Journal of Asian Business Strategy 251.
[138] O'Regan and Taylor (n 56) 88.
[139] Ibid.
[140] Charles D Marshal Jr, 'Liability for Oil and Gas Operations: An Operator's Perspective' (1993) 39 Annual Institute on Mineral Law 211, 214.
[141] Ibid, 218.
[142] Mary S Peters and Manu Kumar, 'Why International Oil Companies Choose to Enter into Joint Operating Agreement' (2012) 53(2) ACTA JURIDICA HUNGARICA 179.
[143] Holdway (n 61) 245.
[144] Hewitt (n 23) 204.

due to public policy considerations; it is likely that the burden of any significant criminal fines will remain with operators.

Fundamentally, the operator merely carries out its functions under the joint venture agreement on behalf of the other co-venturers. The operator's duties in the joint venture are, therefore, contractual. The responsibility for pollution damage is, however, on the joint venture partners who are joint licensees for the petroleum operation but represented by the operator. While multiple persons may hold a licence, legally, there is only one licensee, the other holders notwithstanding.[145]

Under a Concession regime (UK and US), the responsibility for pollution damage is on the licensee. The liability of other licensees is joint and several where there is more than one licence holder. The interpretation section of the Offshore Safety Directive (OSD) defines a licensee for the purpose of offshore operations as follows: *"offshore licensee" means a person who— (a) holds an offshore licence; or (b) held an offshore licence and has been required(c) to submit an abandonment programme (within the meaning of section 29 of the Petroleum Act 1998) to the Secretary of State in relation to activities carried out pursuant to the licence except where— (i) the programme has been approved by the Secretary of State; and (ii) that person is not subject to any obligations under the approved programme".*[146] Under the same section, the Directive defines an operator as "*a person who has been appointed as an installation operator, as a well operator or as both".*[147]

It is the obligation of the licensee, among other things to ensure that adequate provision has been made to cover liabilities that may arise from the petroleum operation. He is also expected to maintain the required financial capacity to meet its obligation in the event of any liability arising from the petroleum operations carried out by operators it appointed or working for it.[148] It is also the financial responsibility of a licensee under Directive 10[149] to prevent and remediate environmental damage arising from petroleum operations carried out by the licensee, or on its behalf or by the operator. Under the US regime, liability for pollution emanating from offshore facilities is on the responsible party who has been granted a lease or permit of the area where

[145] Philip Mace and others, 'Oil and Gas Regulation in the UK: Overview' (*Thomson Reuters- Practical Law*, 1 October 2017 <https://uk.practicallaw.thomsonreuters.com/5-524-5349?transitionType=Default&contextData=(sc.Default)&firstPage=true&bhcp=1 > accessed 17 October 2017.
[146] Offshore Petroleum Licensing (Offshore Safety Directive) Regulations 2015, s 2(1). Entry into force on 19th July 2015. Hereinafter referred to as the OSD.
[147] Ibid. The OSD provides for the appointment of an operator by licensees but it spells out the conditions precedent for such appointment under Section 5 of the directive.
[148] OSD, s 9.
[149] Ibid s 10(1).

the facility is located or hold a right of use and easement granted by the state or under the Outer Continental Shelf Land Act (OCSLA).[150]

Under a PSC regime, as discussed in this study, the nature of the contract determines the liability of the parties. In Nigeria, the state takes part in petroleum operations through the Nigerian National Petroleum Corporation (NNPC) by using different contractual models such as PSCs, Joint Venture Agreements, Concessions, Service Contracts, Sole Risk contracts to develop petroleum resources in the country.[151] However, PSCs are mostly used as the contractual model for petroleum operations. Under the PSC regime in Nigeria, the state through the NNPC holds the highest participating share and is the holder of the Oil Prospecting Licence (OPL) and Oil Mining Lease (OML) for the contract area, while the international oil company (IOC) is a contractor for the PSC. The IOC, who later becomes an operator for the contract, is appointed and given full rights to carry petroleum operations for the contract area. Although the NNPC is the holder of the licence, the contractor finances the petroleum operations. However, the operational cost is taken care of through cost oil with the start of production.

The joint venture model, as discussed under a Concession regime, also applies partly in Nigeria. IOC share the liabilities with NNPC. In a Risk Service Contract, the licence is held by NNPC. However, the service company finances the operations. The service company is paid in cash or crude upon discovery of petroleum.[152] It stands to reason that the position of the operator is different from the licensee as the licensee's functions or obligations are regulatory, while the operator's functions arise more from the contract between the parties in the joint venture. Under the Nigerian PSC model, as shall be seen in this study, the position of the well operator is slightly different. While the state-owned company holds the licence as a licensee, the contractor (appointed most times as operator) bears the cost of the pollution damage, although, the cost is passed down the line and recovered through cost oil as agreed by parties.

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[150] 43 U.S.C. § 2701(32) (C); Jeffery D Morgan, 'The Oil Pollution Act of 1990: A Look at its Impact on the Oil Industry' (2011) 6(1) Fordham Environmental Law Journal 4.
[151] Soji Awogbade, 'Oil and gas regulation in Nigeria: overview' (*Thomson Reuters – Practical Law*, 01 May 2017 <https://uk.practicallaw.thomsonreuters.com/5-523-4794?transitionType=Default&contextData=(sc.Default)> accessed 17 October, 2017.
[152] Olajumoke Akinjide-Balogun, 'Nigeria: Legal Framework of the Nigerian Petroleum Industry' (*Mondaq*, 3 April 2001) <http://www.mondaq.com/Nigeria/x/10726/Legal+Framework+Of+The+Nigerian+Petroleum+Industry> accessed 20 March 2015.

B. A Licensee

The licensee, as already stated, is different from the operator. While the operator is appointed by other co-venturers to perform certain contractual functions under the JOA, the licensee(s) is the holder of the licence and is directly responsible to the government for the petroleum operations in the area awarded. The operator represents the interest of the venture and is in charge of the day-to-day running of the affairs of the joint venture, subject of course to the supervision of the joint operating committee.

C. An Operator

The operator is the party appointed by participants in the joint venture to carry out petroleum operations on their behalf. The party appointed as operator usually hold the highest shareholding capacity amongst the co-venturers. He is in charge of the day to day running of the operations. He has rights, duties and obligations in its capacity as an operator. Operator's activities are supervised, controlled, reviewed, and approved by the joint operating committee, which is made up of participating representatives from the joint venture. Benefits (joint venture account property, hydrocarbon produced from the operation) and burden (joint venture liability) incurred by the operator while carrying out its day to day activities for the venture is the responsibility of the venture except for sole risk, non-consent, gross negligence.

The operator functions as the controller of the petroleum operations for the venture. The operator has to ensure that all petroleum activities are carried out in "good workmanlike manner and with good oilfield practice to avoid loss or accident in the process while also complying with health, safety, and environmental regulations during petroleum operations. He has to keep books, records and accounts of the venture, and also provide production statements and reports, pay the relevant taxes and maintain the title documents of the venture. The operator has a fiduciary duty to other participants in the venture, and he must disclose any relevant conflict or likely conflict of interest.[153]

The operator is the contact person for the joint venture. He manages the day-to-day activities of the venture and designs the well programme, with approval from the operating committee. He represents the interests of the joint venture and acts as the contact man when a downside occurs. As part of its operational function, the operator pays royalties, rentals and shut-in payments; complies with regulatory filings and laws; account for the cost of operations and

[153] Douglas G Mills and others 'Exploring the Balance of Power in the Operator/Non-operator Relationship under the CAPL Operating Procedure' (2010) 48(2) Alberta Law Review 378.

production; fulfil contractual obligations towards third-party service providers. The operator also ensures the implementation of exploration and production activities; carry out contractual obligations to lessors regarding the property; and respond to claims from third parties for personal injury, property damage, or pollution damage.[154]

Concerning liability arising from the operations, the operator takes responsibility for other JOA partners or solely bears the responsibility if there are no co-venturers. There are different types of operators. Some operators are IOCs, while others are National Oil Companies; they vary in terms of their size and resources. Their capacity to manage risk also determines their willingness and ability to take responsibility for specific risks.[155] It must be mentioned that small operators mostly carry out petroleum operations in shallow waters rather than in the deep waters and the Arctic where there is greater financial involvement and pollution risk.

Note that insurance is one way through which parties get financial security for losses. However, super-majors who engage in offshore oil and gas activities would prefer to self-insure than take out private insurance for pollution risk.[156] Majors rely on their balance sheet as evidence of self-insurance while small companies require traditional insurance as security for losses.

D. A Contractor

The contractor is the party that has been hired by the operator to carry out a specific task during hydrocarbon exploration. The contractor, sometimes an independent contractor, possesses the requisite skill in the service area, hence its involvement in the activity. The list of contractors includes companies specialised in drilling, cementing, wire logging or any other particular service required for drilling operations. It must be mentioned that there are other subcontractors usually found in an offshore platform providing one support service or the other. The focus of this study is on the drilling contractors.

The drilling contractor is a crucial player in the contract matrix giving its role in the drilling market. Offshore drilling contracts are either provided on a day rate, turn-key or footage basis.[157] The market for drilling contract is driven by factors that are interconnected: day rates, utilization, and fleet size. The daily rental fee, which the owner of the rig charges is the day

[154] Marshal (n 140) 213.
[155] Cameron (n 7) 213.
[156] Ibid.
[157] Owen L Anderson, 'Drilling for Black Gold under the Model Form Drilling Contracts' (*Energy and Mineral Law Foundation White Paper*, 1994) <http://www.emlf.org/index.php?src=directory&view=whitepaper&srctype=detail&back=whitepaper&refno=3713 > accessed 23 February 2017.

rate. It covers the use of the rig, labour costs, but excludes costs related to well construction (e.g., equipment rental, chemicals, and casing).[158] Demand and supply conditions drive the day rate. Thus, when the demand for rig exceeds supply, the day rate increases. The capital spending pattern of oil companies informs the demand for drilling contracts, and the capital expenditure of oil companies is based on the future expectation of the price of oil and gas, and the associated exploration and development risks of offshore hydrocarbons.[159]

Utilisation is a measure put in place by the industry to determine the proportion of rigs working to the available fleet at a particular place and time. Thus, utilisation evaluates the drilling market spare capacity. The high utilization rate signals low spare capacity in the market and oil companies compete to secure drilling services, increasing prices. High utilization rate is a market indication to operators that more market capacity can be absorbed. Within a region, higher utilization rates lead to the repositioning of fleets by drilling contractors, while higher utilization rate around the globe encourages investment in rig construction.[160] Fleet size is the aggregate number of rigs of a particular water depth or class. The basis of fleet size is described by regional or firm, and this indicates the aggregate capacity in the drilling rig market.

Day rate is commonly used in offshore drilling operations by operators and contractors, and contractors generally provide drilling services under a "contract of service" as against "contract for service". The difference is the legal implication for certain liabilities which may arise during offshore drilling operations. A contract of service is more of an employer and employee contract, while a contract for service is where an independent contractor is hired for a certain fee for providing specialised services. In the oil industry, although a drilling contractor is hired for a particular amount as an independent contractor, the legal implications of a contract for service do not extend to him under a day rate contract except under a turnkey.[161] The contractor under a contract for service is legally responsible for his actions.

E. A Subcontractor

As already stated, Subcontractors assist the drilling contractor in providing vital services that relate to a drilling operation. They carry out wire logging, cementing, catering, and other well-

[158] Mark J Kaiser and Brian Snyder, 'A Primer on the Offshore Drilling Industry' (2013) 44(3) Ocean Development and International Law 287.
[159] C J Cole, 'Replacement Cost Economics of Offshore Drilling Rigs' (*SPE/IADC Drilling Conference Paper*, 28 February- 2 March 1995) < https://www.onepetro.org/conference-paper/SPE-28197-MS > accessed 12 June 2015.
[160] Kaiser and Snyder (n 158) 287.
[161] Owen L Anderson, 'The Anatomy of Oil and Gas Drilling Contract' (1990) 25(3) Tulsa Law Review 359.

related activity. They also execute similar indemnity contract as between the operator and the contractor, under no liability or hold harmless regime, notwithstanding fault. They agree to take responsibility for their staff and property in the event of any damage, while the main contractor does the same. It is worth noting that some drilling contractors in the UK have neglected to sign up to the hold harmless regime as they consider their properties (such as a drilling rig) of greater worth than that of a subcontractor, under an indemnity agreement.[162] Haliburton was a subcontractor to Transocean in the Macondo 252 well, in the Gulf of Mexico.

2.2.1 Liability for pollution damage in the oil industry

2.2.1.1. Strict liability.

In petroleum operations liability for pollution damage, lies on the responsible party. The liability for pollution damage is strict liability. It simply means that it is not necessary to show that the responsible party was negligent in its conduct, which occasioned the pollution for liability to attach. It is enough to show that the responsible party caused the pollution which occurred.[163] It has been noted that the common academic usage of the term "strict liability" is liability without wrongdoing,[164] a liability that will attach whether or not the responsible party met or failed to meet the standard of care or diligence. The requirement for strict liability is that the action can cause harm.[165]

The goals of deterrence, minimisation of accident costs, compensation, and distributive justice[166] inform the utilisation of strict liability for oil pollution damage in the civil liabilities regimes.[167] In law, a responsible party is strictly liable for pollution damage. This form of liability triggers an economic motivation to employ cost-efficient preventive approaches during petroleum operations.[168] Strict liability is desirable for deterrence, but it may face judgment-

[162] Gordon (n 3) 443.
[163] Stephen Shavel, 'Liability for Accidents' in Mitchell Polinsky and Stephen Shavel (eds), *Handbook of Law and Economics* (Volume 1, Elsevier BV 2007) 142.
[164] John C P Goldberg and Benjamin C Zipursky, 'The Strict Liability in the Fault and the Fault in Strict Liability' (2016) 85(2) Fordham Law Review 745.
[165] Ibid.
[166] In this sense, it means that those who are involved in risky activities that causes damage to society should also compensate for the burden brought upon society. It is akin to the enterprise liability where the enterprise is required to pay for the damage caused, as the beneficiary of the activity, without passing it to others.
[167] Tamara L Lev, 'Liability for Environmental Damage from the Offshore Petroleum Industry: Strict Liability Justifications and the Judgment-Proof Problem' (2017) 43(2) Ecology Law Review 485.
[168] Ibid 486.

proof challenges. Judgment-proof may occur where the prospective liability is higher than the capacity to pay of the responsible party.[169]

2.2.1.2 Liability caps

Some scholars note that in a strict liability regime for oil pollution, a regulatory balance is necessary to encourage economic investment, and set benefit and premium levels through the capping of liability. [170] Liability caps are financial limits put in place through regulation in order to aid investment in E&P. However, others argue that putting a cap on liability for pollution damage is a skewed incentive that discourages innovation from reducing harm or preventing loss.[171] It is worth noting that liability caps are necessary drivers in petroleum operations. Apart from encouraging IOCs to engage in petroleum activities, it also provides an incentive for operators, contractors and sub-contractors to bargain for business benefit.

Operators and contractors apply liability caps in their contracts to limit their exposures to liability. The underpinning is to encourage the contractor to accept certain risks that may arise during petroleum operations. Liability caps for contractors could be necessary for pollution risk management, a way of applying the proportionality element of distributive justice. Putting a cap on the well pollution responsibility of a contractor accords with the argument that those who benefit more should bear more burden. It, therefore, means that in a well pollution liability, an operator will bear more responsibility than a contractor. In this study, liability caps, arising either at law or in contract, is founded on the proportionality element of distributive justice. This proportionality element aligns with the public policy objective of assuming responsibility for gross negligence as canvassed in this study.

2.2.1.3 Third party liability

Third party liability arises from losses suffered by persons who are not parties to the contract between the operator and the contractor. The approach of mutual indemnities concerning third parties in the oil industry is that the party at fault pays. This is contrary to other aspects of

[169] Stephen Shavel, 'The Judgment Proof Problem' (1986) 6(45) International Review of Law and Economics 45.
[170] Vincent J. Foley, 'Post-deepwater Horizon: The changing landscape of liability for Oil Pollution in the United States' (2011) 74 Albany Law Review 515.
[171]Gaia J Larsen, 'Skewed Incentives: How Offshore Drilling Policies Fail to Induce Incentives to Reduce Social and Environmental Cost' (2012) 31 Stanford Environmental Law Journal 181.

mutual indemnification (injury, property damage, etc.) where the loss lies where it falls. It means that any third party loss occasioned by the negligence, breach of statute, breach of duty or contract will be the responsibility of the party who caused the loss.[172] The onus of proof that there was negligence or breach of any kind is on the party that alleged the negligence or breach to a third party.

2.3 Contractual risk allocation

2.3.1 Risk allocation in marine and construction contracts

Mutual indemnity is a frequently encountered legal concept which exists not only in the hydrocarbon industry but lies at the heart of construction and marine[173] contracts. Indemnity has its foundation in maritime insurance jurisprudence.[174] This may have informed the position of the court in ***Castellain v Preston***[175] where it was stated that "…*the contract of insurance...is a contract of indemnity, and of indemnity only, and this contract means that the assured, in case of a loss against which the policy has been made, shall be fully indemnified, but shall never be more than fully indemnified...*"[176] .

The concept of risk allocation in marine and construction contracts appears the same except for the reference to key equipment and activities. Notably, in marine pollution risk allocation, a reference to "marine spread"[177] is standard. An indemnity agreement is used to allocate pollution risk between the contractor and a company in an offshore construction contract. The practice is for the contractor to indemnify the company for any pollution claim emanating from its marine spread while the company indemnifies the contractor for any other pollution claim.[178] This practice is similar to the one in the hydrocarbon industry, but it must be stated that the nature and extent of pollution damage and liability differs.

Risk allocation in construction contracts is somewhat similar to the marine contract. In real construction projects, the contractor and the owner (usually government or its agency) shift liability based on certain factors which the party bearing it is perceived to have control over.

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[172] Egbochue (n 52) 10.
[173] Kyriaki Noussia, *The Principle of Indemnity in Marine Insurance Contracts: A Comparative Approach* (Springer, 2006) 27.
[174] Ibid 29.
[175] [1883]11 QBD 380.
[176] Ibid, Per Justice Brett.
[177] Marine spread may be called the vessel spread and in marine parlance it means the equipment used for surveying, and other related equipment, and the captain, technical team, crew members at the construction site.
[178] Ocean Contracts, 'Offshore Construction Contracting Principles: Pollution Indemnity', <http://www.oceancontracts.com/marine_construction_contract/pollution_indemnity.php> accessed 18 July 2015.

Government agencies use indemnity clauses to shift primary responsibility to contractors and insurers, and this is usually the case in major infrastructural projects.[179] While this may be similar to the oil and gas practice, the response, containment and clean-up vry even as the nature of the risk differs. This study shall not dwell on marine and construction risk allocation but shall focus on risk allocation in the offshore hydrocarbon industry.

2.3.2 Causation and risk allocation in offshore hydrocarbon contracts

2.3.2.1 Causation

The examination of risk allocation is connected to the extent of liability and causation. Although the size of a cheque for damage is of fundamental importance to the responsible party, causation, a key driver in tort liability, will be considered briefly as it gives rise to legal liability (strict liability) of a responsible party. Causation will also be reviewed as it gives indicators for allocating liability between parties in the event of a downside. It is possible as parties, through their contract, may agree to distribute the outcome of the strict liability, but the same cannot be transferred to a party that is not strictly responsible.

Causation satisfies the requirement that remedies for damage should emanate from those who are responsible.[180] This is so as causation explains the link between a party's action/behaviour and the harm arising thereof.[181] As an essential condition for liability, causation explains the link between a party's action and the event for which it is responsible.[182] Wright[183] notes that the courts applied the causal rhetoric not only to determine whether a party's tortious action contributed to harm but that it is used to ascertain whether the party should be held legally responsible since he contributed to the harm. The causal connection of a party to harm goes in tandem with the attributive function of causation, which is fixing the extent of responsibility of a party to the outcome of a particular harm.[184]

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[179] C Charoenngam and C Y Yeh, 'Contractual Risk and Liability Sharing in Hydropower Construction' (1999) 17(1) International Journal of Project Management 29; Sigitas Mitkus, 'Graphical Risk and Liability Allocation Models in Construction Contracts' (2005) 6 Foundations of Civil and Environmental Engineering 129.
[180] Notes, 'Causation in Environmental Law: Lessons from Toxic Torts' (2015) 128 Harvard Law Review 2256.
[181] Ibid.
[182] Steven Yannoulidis, 'Causation in the Law of Negligence' (2001) 27(2) Monash University Law Review 319.
[183] Richard W Wright, 'Causation in Tort Law' (1985) 73 California Law Review 1737.
[184] Honoré, Antony, "Causation in the Law", *The Stanford Encyclopaedia of Philosophy* (winter 2010 Edition), Edward N. Zalta (ed), <http://plato.stanford.edu/archives/win2010/entries/causation-law/ > accessed 23 August 2015; Michael S Moore, *Causation and Responsibility: An Essay in Law, Morals, and Metaphysics* (Oxford University Press 2009).

In law, causal responsibility differs from legal responsibility, as a person's responsibility may arise from the fact that he has to answer for particular harm in question.[185] In the hydrocarbon industry, a party may be causally responsible but not legally responsible. This is so as legal liability for pollution damage is strict, with the responsible party bearing the legal responsibility for any damage that may have arisen, irrespective of causation. This position is enforced by the regulator, who holds the operator responsible for pollution damage. The contract for pollution risk allocation in the hydrocarbon is driven along these lines that the responsible party is strictly liable. However, personal liability between parties still exists as a party can, based on their contract, recover losses occasioned by a contracting party.

Hart and Honore,[186] as well as Wright,[187] noted that a fundamental condition of causation is that a party's action is a substantial factor to the resulting outcome, or that his action contributed to the harm that happened. The role a party played towards the occurrence of a particular harm is sometimes a feature in offshore petroleum operations. The Macondo and Montara incidents, according to the several commissions of inquiry, were the results of a causal contribution of the well operator and the drilling contractor. It has been advanced that responsibility between parties may arise from causation or risk allocation.[188] Causation, accordingly, unsettles the responsible party when a downside occurs.

The contribution referred to above is what Wright term the *NESS* (Necessary Element of a Sufficient Set) condition.[189] In order words, the agent's negligent act, with other actions, resulted in the outcome under the NESS condition. Also, where actions contribute to an outcome, liability is expected to be shared between the parties following their causal connections. This is so as theories of agent-focused responsibilities that are not distributionally neutral,[190] points to a distributional implication[191]resulting from a causal responsibility. Honore' calls it outcome responsibility as it allocates outcomes or consequences for actions.[192]

[185] Ibid. A common example is vicarious liability. An employee may be causally responsible for an accident but may not be legally responsible for the liability thereof.
[186] HLA Hart and Tony Honore, *Causation in the Law* (2nd edn, Clarendon Press 1985).
[187] Wright (n 183) 1738.
[188] Hart and Honore (n 186).
[189] Wright (n 183) 1788-1803. For further explanations on the NESS condition see Euan West, 'The Utility of the NESS Test of Factual Causation in Scots Law' (2013) 4(3) Aberdeen Student Law Review 39; Desmond M Clarke, 'Causation and Liability in Tort Law' (2014) 5(2) Jurisprudence 217.
[190] Peter Cane, *Responsibility in Law and Morality* (Hart Publishing 2002) 190.
[191] Ibid.
[192] Tony Honore', *Responsibility and Fault* (Hart Publishing 1999) 15.

Although this study is not about causation, it is worth mentioning that the "but-for" condition of causation, as opposed to the NESS condition, has been canvased by some scholars[193] as the test for factual causation.

2.3.2.2 Risk allocation in offshore hydrocarbon contracts

As has been noted earlier, the allocation of risks in the oil industry depends on the type of risk involved, the party's bargaining power and the prevailing market situation. It means that while industry practice exists in standard forms, market conditions and the various negotiation positions of parties to the contract will undoubtedly influence risk allocation.[194] For ease of understanding, the common aspects of offshore contracts relating to this study are reproduced below.

Figure: A summary of indemnity contracts drawn from some jurisdictions.

Standard form	Death/ Personal Injury & loss/damage KK indemnities	Pollution KK indemnities	Extension to party's group	Consequential loss
LOGIC Construction Ed, 2 Oct. 2003	Company also indemnifies contractor group in respect of loss/damage to permanent third-party oil and gas facilities and consequential losses (as defined) therefrom. Expressly stated that all of these indemnities and pollution indemnities apply irrespective of cause and notwithstanding negligence or breach of duty by indemnified party.	Contractor indemnifies company group against claims in respect of pollution occurring on or emanating from contractor group's premises, property or equipment. Company indemnifies contractor group against claims in respect of pollution emanating from the reservoir or company group's property	Company group does not include company's other contractors	Each party indemnifies the other against claims consequential loss(as defined) from its party group
AIPN model well services contracts 2002	Operator also indemnifies contractor in respect of contractor group equipment, loss or damaged down hole. Indemnities do not apply to death, personal injuries, loss or damage caused by gross negligence or willful misconduct of the other party	Operator indemnifies contractor against claims arising from a work site fire or explosion or blowout, cratering or uncontrolled well condition regardless of cause	Company group includes company other contractors	Neither party is responsible to the other for consequential damages (as defined). Alternative two also adds an indemnity in respect of each party's group consequential damages claims. Another

[193] David A Caody, 'Testing for Causation in Tort Law' (2002) 27 Australian Journal of Legal Philosophy 83.
[194] Cary A. Moomjian Jr, 'Contractual insurance and risk allocation in the offshore drilling industry' (*Drilling Contractor*, series 3 1999) 29 <http://www.iadc.org/dcpi/dc-mayjun99/m-cary.pdf > accessed 11 April 2015.

				alternative carves out gross negligence
BIMCO Time Charter Party for Offshore Service Vessels 2005	Expressly stated that indemnity applies even if caused by the act, neglect or default of other party group or unseaworthiness of any vessel	Owners indemnify charter against claims for pollution damage arising from acts or omissions of owners or their personnel which cause discharge, spill or leaks from vessel other than emanating from cargo thereon. Charter indemnifies owners against claims in respect of all other pollution damage even if caused by the act, neglect or default of Owners Group or unseaworthiness of any vessel	Charterer Group includes Charterer's contractor	Each party indemnifies the other against claims for consequential damages (as defined) from its party Group.

Source: Egbochue[195]

It can be safely argued that the primary offshore hydrocarbon risk allocation tool used in contracts between operators and contractors is the knock for knock or mutual indemnity clause (reciprocal indemnity).[196] As already represented, a knock for knock indemnity in its most basic form provides that party X (e.g., an operator) indemnifies party Y (e.g., a drilling contractor) against claims regarding any:

• *death of, or personal injury to, party X's employees;*

• *loss of, or damage to, party X's property; and*

• *pollution emanating from party X's property.*[197]

Indemnity is given for all events above irrespective of whether party Y's negligence or breach (contractual or statutory breach) may have occasioned or contributed to the death, personal injury, loss, damage or pollution in question. In return, the drilling contractor, party Y provides a reciprocal indemnity in favour of party X. These clauses sometimes extend to the parties' groups, contractors and subcontractors. It must be noted that these clauses have a blanket application for shallow waters, deep offshore areas and the Arctic. This is so as the standard form contracts make no distinction for drilling activities in these areas. The indemnity also

[195] Egbochue (n 52) 11.
[196] Sometimes referred to as "bury your own dead" indemnities, reciprocal indemnities.
[197] Egbochue (n 52) 9.

covers group members of the two contracting parties. For instance, the indemnity will cover the operator's co-venturers and contractor's group.

2.4 Discussions relating to contractual risk allocation

The complex nature of offshore operations results in risks which the industry regulates through mutual indemnity agreements, without regard to fault. However, mutual indemnity has always been treated with fundamental suspicion by the law.[198] The suspicion is more when the agreement provides for a party to benefit from its gross negligence. As some significant offshore accidents occur and expose participants to liability, the practice of risk allocation has been brought under scrutiny. The central concern is the harm and loss resulting from these accidents and the impact on society. Among scholars, a consensus exists that post-Macondo contracts will experience some changes concerning the allocation of key risks.[199]

Public policy concern has been raised as the practice of risk allocation allow a grossly negligent party to walk free. Accordingly, a review of the practice of risk allocation in the oil industry is vital to ascertaining its adequacy or otherwise in the present world, and to understand the mechanisms that could be applied to address the challenges. The review is also essential in order to identify the gaps in the practice and to suggest ways of rethinking the practice of risk allocation for an informed future direction in the industry.

A look at the existing literature on risk allocation in the oil industry, show that they mostly examine risk allocation as applied through mutual indemnity.[200] Others provide drafting direction, attempt to explain the meaning of gross negligence and explore catastrophic liability.[201] Albeit, the strategy to address conducts that results in risk which produce harm and losses has not been considered. This strategy lies in the use of contract and regulation to address practices that could encourage bad oilfield practices and possibly result in harm to society and make some participants risk-averse. The current literature merely focuses on how parties can

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[198] Gordon (n 3) 446.
[199] Cary A. Moomjian Jr, 'Drilling Contract Historical Development and Future Trends Post-Macondo: Reflections on a 35 Year Industry Career' (*Drilling Contractor*, 7 March 2012) < http://www.drillingcontractor.org/wp-content/uploads/2012/04/Drilling-Contract-Historical-Development-and-Future-Trends-Post-Macondo.pdf > accessed 20 December 2015; Economist Intelligence Unit (n 68) 12.
[200] Egbochue (n 52) 7-14; Choudhury (n 47) 2; Maria M Andrade, 'Knock for Knock Indemnities: Contract Practices and Enforceability Issues' (2011) 6 OGEL < www.ogel.org/article.asp?key=3216> accessed 12 April 2015; Pat Saraceni and Nicholas Summers, 'Reviewing Knock for Knock Indemnities: Risk Allocation in Maritime and Offshore Oil and Gas Contracts' (2016) 30 Australia and New Zealand Maritime Law Journal 28; Wilson (n 121).
[201] Cameron (n 7) 217.

allocate and manage risk according to their contractual capacities.[202] The literature leans towards a reactive approach to handling risks, cost savings, and a business benefit of the practice of risk allocation, rather than a proactive approach that will bring about good oilfield practice that could prevent damage, deter wrongful conducts, and promote risk management.

Although one scholar queried as to whether contractors should be assigned more risk,[203] he did not provide any clear direction on how this should be done. Nevertheless, he noted that contractors should be incentivised to ensure effective risk prevention to avoid harm. Another scholar identified the moral hazard challenge created by the practice of mutual indemnification. He notes that it takes away the incentive to act prudently, but he did not provide the means to check the moral hazard in the risk allocation practice.[204] The fundamental essence of a liability regime in the oil sector is to discourage practices that could result in harm by applying liability rules and encouraging safe offshore practices for all participants and society.

An identifiable gap in the literature is that, while some scholars have critiqued the practice of risk allocation, they have not been able to show how the practice could be revised to address the concern of harm and losses. Damage result from certain conducts which have no responsibility attached to it if violated. When conducts are unchecked, the result is the exercise of less care on no care at all, since liability will not attach. As a way of filling this gap, this research proposes that mutual indemnity should apply subject to the exception of gross negligence to incentivise good conduct. [205] In this way, conducts that are seriously wrongful are prohibited, and parties are precluded from contracting outside the requirement of law and contract.

Another gap in the literature is that, while gross negligence has been defined in severally instances, none could be applied as a term of art. Thus, it makes reliance on it as a means of checking irresponsible behaviour doubtful. It has been stated that gross negligence is a matter of moral judgement by a jury or judge or the application of moral blameworthiness about an act that is reprehensible.[206] Moral blameworthiness appears subjective and leaves no stable

[202] Helen Franklin, 'Irretrievable Breakdown? A Review of Operator/Contractor Relationships in the Oil and Gas Industry' (2005) 23(1) Journal of Energy and Natural Resources Law 8.
[203] Egbochue (n 52) 14.
[204] Choudhury (n 47) 6.
[205] Ibid 7; Saraceni and Summers (n 200) 34; Blaine LeCesne, 'Crude Decisions: Re-examining Degrees of Negligence in the Context of the BP Oil Spill' (2014) 2012(1) Michigan State Law Review 103; Patrick H Martin, 'The BP Spill and the Meaning of Gross Negligence or Willful Misconduct' (2011) 71(3) Louisiana Law Review 957.
[206] Martins (n 205) 958.

meaning in its application, as what is morally reprehensible will depend on the individual. It means that gross negligence is still open to several connotations, thus leaving room for grossly negligent conduct to escape liability.

It is submitted that discouraging moral hazard and incentivising the prevention of harm is key to solving the problem of damage or losses in drilling operations. A risk allocation practice that subjects mutual indemnity agreements to conducts that are seriously wrongful is fundamental to dousing the fears of liability resulting from damage. This is an important gap that this study seeks to address through the use of regulation and contract. Additionally, this study proposes the application of the Rawlsian veil of ignorance when parties are contracting. Allocating contract behind the veil of ignorance allows for the consideration of public interest and ensures fairness for everyone.

2.5 Conclusion

The definition and explanation of key terms in this chapter aid the understanding of their usage and application during drilling operations. Causation, as examined, reveals that harm could arise from the contributory negligence of parties to the contract. Causation is a crucial element in risk occurrence, and it could be checked by subjecting mutual indemnity to gross negligence, thus, discouraging bad oilfield practices which result from the absence of an obligation to exercise care.

From the literature, this study pointed out that the non-recourse to fault for grossly negligent conducts creates a gap in the practice of risk allocation. This is because it undermines the strategy of risk prevention, control and management. Again, even for contracts that refer to gross negligence, the concept is not a term of art that will ensure a precise meaning and application. This could lead to a wrong application by the court, thus, allowing a party to indemnify against the gross negligence of another party.

If parties are obligated to make mutual indemnity agreements subject to gross negligence, it will elicit an exercise of care that will discourage moral hazard and promote practices that could prevent harm to society; the very things that public policy will also promote. Public policy emphasises the need to prohibit the enforcement of mutual indemnities using gross negligence as a shield. The next chapter will provide useful insights into the nature of gross negligence and its correlation with public policy. It will show how allowing the use of mutual indemnity as a shield against the former by a party at fault will be contrary to the latter.

Chapter 3 : Gross negligence and public policy considerations in risk allocation

In offshore drilling contracts, the understanding of parties is that gross negligence is meant to be a trigger for liability to attach to the defaulting party, as opposed to mere negligence which will not result in any liability.[207]

3.0 Introduction

This chapter investigates the historical evolution of gross negligence and its application by parties in the oil industry, before setting out the definition of gross negligence as a term of art. The aim is to have a legal standard through which gross negligence could be applied as carve out for liability to attach to a party at fault in a contract. This chapter also examines public policy as it relates to gross negligence by a party who occasioned the harm. The chapter notes that public policy would not allow a party to use mutual indemnity as a shield against liability for its wrong that results in harm to others. The reason is that the freedom to contract is limited by public policy objective.

3.1 Negligence and gross negligence

The concept of negligence will be discussed first before proceeding to examine '*gross negligence*'. The essence is to provide a foundation upon which the definition of gross negligence will be based, for application as a term of art. In discussing negligence, this study will focus mainly on such fundamental issues as its meaning, the standard of care, and how negligence is proved.

Negligence is a flexible term which is not restricted by strict limits. It is relative to person, place and circumstance,[208] and it is established through proof. Negligence is defined as the "*omission to do something which a reasonable man, guided upon those considerations which ordinarily regulate the conduct of human affairs, would do, or doing something which a prudent and reasonable man would not do*".[209] It also "*connotes the complex concept of duty, breach and damage suffered by the person to whom the duty was owing*".[210] It means that when a person fails to conform to the required standard of behaviour of a prudent man in a particular circumstance, this person is negligent.

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[207] Author's quote.
[208] R F V Heuston and R A Buckley, *Salmond and Heuston on the Law of Torts* (21st edn, Sweet and Maxwell Ltd 1996) 196.
[209] Bryan M E McMahon and William Binchy, *Law of Torts* (3rd edn, Butterworths 2000) 145.
[210] Ibid.

Some courts associated negligence with the intention to injure or inflict injury.[211] Negligence is conduct and not a state of mind, as conduct is different from intent.[212] In some jurisdictions, efforts have been made to set up several sign-posts of liability by adopting three degrees of care or degrees of negligence – slight negligence, ordinary negligence, and gross negligence.[213] This study will not look at this in detail but then focus mostly on the meaning of gross negligence.

For the tort of negligence to be established, certain basic elements must exist and they are as follows: a duty of care or legal obligation, which require a person to conform to certain standard of conduct so as to protect others against unreasonable risks; a failure by that defendant to conform to the required standard of care; actual loss or damage suffered by the plaintiff from defendant's conduct; a reasonably close connection between the defendant's conduct and the resulting plaintiff's injury.[214] These elements are general and do not prove the case. They rather point to issues and set the terms in which the cases are argued. These elements are established through proof.

Over the years, the standard of care applicable for negligence cases has been that of a reasonable or prudent man and the test is an objective test and not a subjective test.[215] The question has always been what care a reasonable man exercise will if found in the same circumstances as the defendant or what will a reasonable man do in these circumstances. The objective test applies from the perspective of a reasonable man and not a subjective test from the defendant's perspective or his morality or individual sense of right or wrong.[216]

To establish negligence, the plaintiff is not legally required to prove intention or predetermined act by the defendant to harm him. In law, all that is required is for the plaintiff to show that defendant's conduct was negligent in the circumstance.[217] He also does not need to show the degree of negligence or a different standard of care. In the law of torts, different standards of

[211] Donnelly v. Southern Pacific Co., 118 P. 2d 465, 469 [Cal. 1941]; Altman v. Aronson, 231 Mass. 588, 592 [1919].
[212] Daniel O Howard, 'An Analysis of Gross Negligence' (1954) 37(4) Marquette Law Review 333.
[213] Ibid 334. Slight negligence" has been defined as "an absence of that degree of care and vigilance which persons of extraordinary prudence and foresight are accustomed to use." "Ordinary negligence," though variously defined, is fundamentally a failure to exercise such care as the great mass of mankind exercise under the same or similar circumstances. "Gross negligence" has been defined as a want of even slight care, failure to exercise reasonable care," and very great negligence. Some courts have held that gross negligence remains an inadvertent act,' while others hold that the element of virtual intent must be present.
[214] Page Keeton and William L Prosser, *Prosser and Keeton on the Law of Torts* (5th edn, West Publishing Co 1984) 165; Dan B Dobbs, *The Law of Torts: Practitioner Treatise Series* (Volume 1, West Group 2001) 269.
[215] McMahon and Binchy (n 209) 146.
[216] Keeton and Prosser (n 214) 169.
[217] Heuston and Buckley (n 208) 194.

care or degrees of negligence are not recognised in different classes of actions.[218] The recognised standard is the care a prudent man will exercise in the circumstance.[219]

The underpinning may be that since the degrees of negligence or standards of care do not increase or decrease liability, it makes no difference to vary the degree or standard in tort. The defendant will still be liable in damages to compensate the plaintiff, the negligence notwithstanding.[220] The egregiousness or degree of the defendant's conduct does not matter since it results in liability for the defendant. In an attempt to create degrees of negligence, gross negligence made an in-road into the law of tort. History may lend some credence to this view.

3.1.1 Gross negligence: A historical perspective

Historically, gross negligence as a concept emanates from Roman law.[221] While some controversy exists as to the position of negligence in Roman law, there appears to be in existence in the Justinian time, two degrees of negligence - *"culpa lata"* and *"culpa levis"*.[222] "*Culpa lata*," is also referred to as gross neglect. It arises where a person fails to use the care of an ordinary man of reasonable intellect.[223] Culpa lata refers to contract law in some way but used more often in criminal law and quasi-contracts.[224] It applies the reasonable man's standard and includes acts which a man of unrefined intelligence would not have committed.[225] On the other hand, "*culpa levis"* or ordinary fault, refers to the failure to conform to the conduct of a careful businessman.[226] Roman law of negligence dealt mostly with contractual duties arising from agreements such as bailment. It did not apply to wrongs in torts which were independent of contracts.[227]

In England, the concept of gross negligence is traceable to Bracton's De Legibus et Consuetudinibus Angliae, which incorporated much of the Roman theory of degrees of negligence.[228] Bracton's treatise contributed to the field of bailments, where the courts used degrees of negligence in settling disputes. Bailment arises when a Bailee takes possession of

[218] Ibid 223.
[219] Brown v Kendal, 60 Mass. 292 [1850].
[220] Dobbs (214) 349.
[221] Melville M Bigelow, *The Law of Torts* (8th edn, Little, Brown and Company 1907) 118.
[222] Sheldon D Elliot, 'Degrees of Negligence' (1933) 6(2) Southern California Law Review 99.
[223] Ibid.
[224] Ibid.
[225] Ibid 100.
[226] Ibid.
[227] Howard (n 212) 336.
[228] Frederick Green, 'High Care and Gross Negligence' (1928) 23(1) Illinois Law Review 12.

goods owned by a Bailor.[229] Lord Holt, handing down his opinion in ***Coggs v. Bernard***[230] reviewed the degrees of negligence based on Bracton's treatise and went on to outline the liability and degree of care which attached to each situation.[231]

Bailment exists independent of contract but often arise from a contractual relationship such as a hire or loan transaction.[232] It could be for gratis or for a reward. The duty of care in bailment varies as the interest differs. In a bailment for the benefit of the Bailor, the duty of care required of the Bailee is slight care. Where it is for Bailee's benefit, extraordinary care is required, while an ordinary duty of care applies where the bailment is for the parties' mutual benefit.[233]

In an attempt to revise Lord Holt's opinion, Sir Williams Jones propounded negligence grouping to wit: "*GROSS neglect, lata culpa . . . is in practice considered as equivalent to DOLUS or FRAUD, itself; and consists, according to the best interpreters, in the omission of that care, which even inattentive and thoughtless men never fail to take of their property ...*" *"ORDINARY neglect, levis culpa, is the want of that diligence which the generality of mankind uses in their own concerns; that is, ordinary care." "SLIGHT neglect, levissima culpa, is the omission of that care which very attentive and vigilant persons take of their own goods, or in other words, of very exact diligence*".[234]

The above divisions of negligence became well established in the field of bailment, and it made an in-road into torts. For consistency in the law of torts, the contractual background of gross negligence and other identified degrees were overlooked. Bailment negligence in the field of torts appears to have been applied first in the early Nineteenth century,[235] and in the US, Justice Story commentaries on the Law of Bailments influenced the introduction of Bailment into the legal system.[236] Apart from the Roman contract and criminal law, gross negligence resurfaced in the English law of bailment in the Eighteenth Century before standing alone in torts in the

[229] Ben McFarlane, 'Bailment' in Peter Cane and Joanne Conaghan (eds), *The New Oxford Companion of Law* (Oxford University Press 2008).
[230] 2 Ld. Raym. 909, 92 Eng. Rep. 107 [1703].The defendant in this case undertook to transport some casks of brandy from one cellar to another without compensation. The defendant was negligent in handling the casks and one of them broke and poured on the ground. The plaintiff sought to hold the gratuitous Bailee (defendant) liable for the loss. The court then set out the liability and degree of care attached to each situation.
[231] Ibid; Green (n 228) 12; Consult, 'The Three Degrees of Negligence' (1874) 8 American Law Review 652.
[232] McFarlane (n 229).
[233] Richard H Helmholz, 'Theories and the Liability of Bailees: The Elusive Uniform Standard of Reasonable Care' (1992) 41 University of Kansas Law Review 97.
[234] William Jones, *An Essay on the Law of Bailments* (2nd edn, 1804) 62-111.
[235] Howard (n 212) 338.
[236] Ibid.

early Nineteenth Century. In both Roman and early English law, liability in bailment and torts were absolute but gradually became relative.[237]

As a concept in bailment, gross negligence was still applicable as the primary contractual relationship whereby specific obligations could be ascertained. In contracts, gross negligence limits the application of indemnity clauses. Parties to a contract sometimes state that an indemnity clause does not cover gross negligence.[238] As a concept in tort, it became a labyrinth of complex definitions and reasoning.[239] In English tort law, it has been abandoned.[240] However, other areas of English law such as criminal law[241] still apply gross negligence in the determination of liability, an indication that the concept is intelligible and its application not entirely difficult. In other areas of law such as a mortgage, where gross negligence is established in the conduct of a legal mortgagee, it will be postponed if it will be unjust to deprive a prior equitable incumbrancer of his priority.[242]

The challenge is even more complicated in the US as there are several states with powers to make laws. In states where gross negligence is considered a meaningful term, there is still the problem whether the difference between gross negligence and ordinary negligence is one of degree or kind. Some courts hold that the difference is about kind as ordinary negligence arises from inadvertence while gross negligence falls within the area of actual or constructive intent to harm.[243] It must be noted, however, that gross negligence, whether in tort or bailment, is conduct and not an intention.[244] Its origin is traceable to bailment and contracts than tort, with a focus on parties' conduct.

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[237] Ibid.
[238] Red Sea Tankers Ltd. and others v. Papachristidis and others, Henderson, Baarma and Bouckley (Third Parties) (the "Hellespont Ardent") [1997] 2 Lloyd's Rep. 547.
[239] Ibid.
[240] Although gross negligence has been abandoned in English law of tort, it still remains applicable in cases where damages are claimed for the wrongful arrest of a vessel. The claim will succeed where gross negligence or bad faith is shown. See *Centro Latino Americano de Commercio Exterior SA v. Owners of the Kommunar (The Kommunar) (No. 3) [1997] 1 Lloyd's Rep. 22. QBD*.
[241] A person's act of gross negligence could be used to establish manslaughter in English criminal law. See Bawa-Garba v. R [2016] EWCA Crim 1841; R v. Sellu [2016] EWCA Crim. 1716; R v. Adomako [1995] 1 A. C 171; Corporate Manslaughter and Corporate Homicide Act 2007, S.1 (1) (b).
[242] Northern Counties of England Fire Insurance Co. v. Whipp [1884] 26 Ch. D. 482.
[243] Wedel v. Klein, 229 Wis. 419, 422, 282 N.W. 606, 607 [1938]; Wieczorek v. Merskin, 208 Mich. 145, 13 N.W. 2d 239, 240 [1944].
[244] In Kastel v. Stieber, 56 83 Cal. Dec. 249, 8 P. 2d 474, 478 [1932], the court held that: "We should not confuse 'gross negligence' with 'wilful misconduct' because there is a clear distinction between the two terms … Whenever the element of knowledge and wilfulness enters into the act, it ceases to be negligence ..."

3.1.2 Varying the standard of care

A fundamental question here is whether there have been instances where negligence was varied to achieve a particular purpose or underpinning, or can gross negligence be varied to achieve a specific purpose? When the degrees of negligence is examined from a risk-utility perspective, a different dimension is presented. This is so as risk-utility formula suggests that some negligent conducts are worse than others. This perspective may invite bootless wrangling over questions about the objective test.[245] Nonetheless, there have been instances where the courts and lawmakers have varied the requirement for negligent conduct by providing for a limited standard of care. It means that for a person to be liable for a wrong, the negligence must be of a higher degree. This practice ensures that the negligent conduct does not go unpunished so that public policy is not negated. Putting a limit to the allowance of certain harmful conducts promotes public policy and discourages moral hazard in contractual transactions or where a legal duty exists.

Instances, where this variation has been applied, are where the statute provides that an operator of an emergency vehicle (fire engines, ambulances etcetera) is only liable if the negligent conduct is of a higher degree.[246] Another instance is where the conduct of a public officer is adjudged to be grossly negligent based on public policy decision exercised in the performance of his public duty.[247] Other instances where the standard of care could be limited include possibly voluntary emergency assistance[248] or where parties agree in a contract that only a high degree of negligence should be the basis for liability. This could be as a result of the nature of their transaction and the benefit and burden of parties.[249] There is evidence of the application of a varied or limited standard of care by the English courts in special circumstances. The court

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[245] McMahon and Binchy (n 209) 160; Cf O'Connell v. CIE [1954] 89 ILTR 95 (HC).
[246] Saarinen v. Kerr, 84 N.Y.2d 494, 644 N.E.2d 988, 620 N.Y.S.2d 297 [1994]
[247] Elizabeth Carroll, 'Wednesbury Unreasonableness as a Limit to Civil Liability of Public Authorities' (2007) 15 Tort Law Review 77; Calloway v. Kinkelaar, 168 III.2d 312, 213 III.Dec. 675, 659 N.E.2d 1322 [1995]; Civil Liability Act, 2002, (Western Australia) S. 5X; Civil Liability Act, 2002, (New South Wales).
[248] Kevin Williams, 'Medical Samaritans: Is there a Duty to Treat?' (2001) 21(3) Oxford Journal of Legal Studies 411; Emergency Medical Act 2000, Alberta; Good Samaritan Act 1996, British Columbia; Quebec Civil Code, Article 1471; Civil Liability Act 2002, Pt 8A, Tasmania. The Irish Law Reform Commission in 2009, proposed a limited standard of care for volunteers. See Irish Law Reform Commission, Civil Liability of Good Samaritans and Volunteers (L. R. C 93, 2009). This limited standard of care for volunteers was however rejected by an English court in Cattley v. St John's Ambulance Brigade (Q. B. D., 25 Nov. 1998). However, the possibility of a legislative clarity was echoed in Lord Young's report, "Common Sense, Common Safety", October 2010, A report by Lord Young of Graffham to the Prime Minister following a Whitehall-wide review of the operation of health and safety laws and the growth of the compensation culture, available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/60905/402906_CommonSense_acc.pdf (accessed 30 April 2018).
[249] In the oil and gas industry, parties (operator and contractor) sometimes agree that gross negligence will be a basis for a contractor to assume liability.

applied a limited standard of care to show the obligation an occupier owes a trespasser and a non-visitor. The court's position was that, for an occupier to be liable to a trespasser, the injury must result from a reckless disregard of the trespasser's safety.[250]

Similarly, for public authorities, the courts have also applied a modified standard of care to enable the exercise of discretion by public office holders. In ***Home Office V. Dorset Yacht***, the court held that negligence could only arise from the decision of a public authority when such decision was manifestly careless or unreasonable that it did not amount to an exercise of discretion granted by a statute. Trustee's exemption clause also lends credence to the utility of the gross negligence debate, on the proper scope of trustee's exemption, drawing a distinction between gross negligence which is not allowed and ordinary negligence which is allowed.[251] The Trust Law Commission recognised the existence of the distinction between gross negligence and ordinary negligence. The Scotland Law Commission, in one of its discussion papers, concluded that gross negligence was a useful concept.[252] In all these situations mentioned, liability for wrongful act apply to a high degree of negligence.

The emphasis here is on the degree of the carelessness and not just on ordinary carelessness that would amount to negligence. This limited standard of care, in particular cases make the degree of negligence to be relevant in certain circumstances. The variation of negligence standard in the situations discussed arises from a consideration of the social utility of the conduct of the defendant,[253] the public authority in question, or from the contractual relationship of the parties. In other to limit or modify the standard of care, a high degree of negligence, in the form of gross negligence, could be applied in specific circumstances to protect the interest of the defendant. It will afford public servants the protection they require to carry out their duty, while also preserving public policy and discouraging moral hazard. It means that liability will only arise from the degree of harmful conduct and not the lack of ordinary care. It the circumstance, it is the severely awful conduct that will determine liability. What then is gross negligence considering the various decisions of courts and opinions of scholars?

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[250] Robert Addie & Sons (Collieries) Ltd v. Dumbreck (1929) A.C. 358. Although this limited application was abandoned in *British Railway Board v. Herrington*, the court applied a lesser obligation of "common humanity" as opposed to the standard of a reasonable man. This lesser duty later assumed a statutory strength in the Occupiers' Liability Act of 1984.

[251] Trust Law Commission, Trustees Exemption Clause (Law Comm. No. 301, 2006) paras A. 43 – A. 48.

[252] Scottish Law Commission, Breach of Trust, (Scot. Law Comm. D. P. No. 123, 2003), para 3.30.

[253] Richard W Wright, 'The Standard of Care in Negligence Law' in David G Owen (ed), *The Philosophical Foundations of Tort Law* (Oxford University Press 1995) 250.

3.1.3 Gross negligence defined

It can be seen from the above discussion that gross negligence emanated from bailment, and it was used to achieve specific purposes in contracts before it became a term in tort. From the case cited,[254] where a bailor delivers goods to a Bailee for gratis, the Bailee is not liable for negligence where the goods are damaged, but for a higher degree of negligence (gross negligence). Albeit, where it is contractual, reasonable care must be applied, and that is where the ordinary standard of care is effective. It stands to reason that where the bailor's service was for gratis to the bailor, the Bailee is only liable for gross neglect or fraud: the duty of care is limited or slight. What then is the opinion of courts and scholars from the various jurisdictions on gross negligence?

3.1.3.1 Gross negligence under the U.S regime.

The terms "gross negligence" assumes an essential place in the US hydrocarbon contracting practice and tort law. Gross negligence could be used as a sword or as a shield. When used as a sword, it could be the ground for terminating a contract; a basis for indemnification; or a circumvention of a waiver of liability. As a shield, it could act as a ground for a release from liability although the courts in the ***City of Santa Barbara v. Superior Courts***[255] and ***Sommer v. Federal Signal Corp***[256] cases had held that advance releases of liability are unenforceable on the grounds of public policy consideration in cases of gross negligence. However, a liability release that employs negligence standards, and other types of clauses may be enforceable.

The determination of a person's conduct, whether negligent or grossly negligent, may depend on the circumstance. Some scholars advance that gross negligence is vague, unrealistic in its context, unfounded in principle and has no settled meaning.[257] They further argue that what prevails in most situation is that, as a matter of law, there exist no degree of negligence or care, but that as a matter of fact, different amount of care exists. The court in ***The Steamboat New World v King***[258] case noted that the applicability of the term gross negligence and willful misconduct is doubtful as their meaning is not fixed and that when one degree is fixed it will confound another and make it impracticable to distinguish. The reason is that their significance differs according to circumstances, and their exceptions are many. Hence, they are scarcely

[254] Coggs v. Bernard (n 222).
[255] 161 P. 3d 1095 [Cal. 2007].
[256] 7a N.Y. 2d 540 [N.Y. 1992]; David Shine, 'Contractual Application of Negligence/Gross Negligence Standards: Considerations under New York Law' (2005) 8(10) The M & A Lawyer 10. It must be noted that releases from gross negligence is not likely to be enforceable in New York.
[257] Keeton and Prosser (n 214) 210.
[258] 57 U.S (16 How.) 469, 474 [1853].

seen as not having a general operation.[259] The court in **The Steamboat case** posited further that if the law provided no applicable definition of gross negligence but left same to the jury to determine it, it would appear that the attempt to define that duty should better be abandoned. It has also been advanced that, historically, gross negligence is a fault-based moral judgment, and their usage in some areas of tort law have distortedly brought them into the *'causation'* concept.[260]

While the concept of gross negligence is not recognised traditional in the UK and Australia as a separate concept,[261] the Oil Pollution Act 1990, through the Congress had engraved the term 'gross negligence' in the US regime, albeit without precise meaning. The OPA deals with oil pollution at sea in the US. The Clean Water Act, a federal legislation, also does not define the term.[262] The mindset of the Congress may be for this term to operate as a moral basis for severe liability against a party for causing damage that would arise from negligence applicable under tort rules.[263] Thus, making it a moral judgement rather than a legal judgement.

In determining the extent of liability of a responsible party, OPA limits the responsible party's liability to $75m but stated that the liability shall be without limit if the responsible party is guilty of gross negligence.[264] It must be noted that some mutual indemnity agreements carve out gross negligence as a liability trigger, except where parties agree to the contrary as in the case of BP and Transocean contract. The challenge before the courts always is to construe the meaning of gross negligence as used by parties in their contract. What does gross negligence mean under the US regime?

The term is a gradation of negligence used as heightened degrees of fault to trigger responsibility for damage and impose severe liability on a responsible party.[265] Categorising degree of negligence is difficult, hence the inability of courts to draw a coherent difference

[259] Martin (n 205) 959.
[260] Ibid.
[261] Tradigrain SA v Intertek Testing Services (ITS) Canada Ltd [2007] EWCA Civ 154, [23] (Bick LJ); C Sappideen and P Vines, Fleming's The Law of Torts (Lawbook Co., 10 ed, 2011), [7.180].
[262]The OPA and the CWA both used the terms wilful misconduct and gross negligence. Before now, the standard for unlimited liability under the CWA was "*willful negligence or willful misconduct*" 33 U.S.C. § 1321(b)(6)(B) (1988). This was however changed to gross negligence or willful misconduct by the OPA. Pub.L. 101-380, § 4301(b) (D), 104 Stat. 484, 537 (1990) (emphasis added. *See also Water Quality Ins. Syndicate v. United States,* 522 F.Supp.2d 220, 229 (D.D.C.2007) (relying on case law interpreting "willful misconduct" under the CWA to interpret that phrase under OPA); 82 C.J.S. *Statutes* § 476 (2014) (statutes relating to the same subject matter "generally should be read as together constituting one law and should be harmonized if possible").
[263] Martin (n 205) 991
[264] 33 U.S.C S.2704 (C) (1) (A).
[265] LeCesne (n 205) 105.

between gross negligence and ordinary negligence. In the US, this term is, however, a vital part of the regulatory fabric of federal and state statutory schemes for deterrence, and the improvement of safety in high-risk activities such as hydrocarbon exploration and production.

The focus on gross negligence has always been one of degree and not of kind. This is so as the Court of Appeal in **Sommer's case** held that gross negligence must "*smack of intentional wrongdoing" and that the conduct must "evince a reckless indifference to the right of others*".[266] In contrast to Sommer's case, the Supreme Court of California, in **City of Santa Barbara's case** held that GN "*has long been defined ... as either a 'want of even scant care' or an extreme departure from the ordinary standard conduct*".[267] To the US Coast Guard's National Pollution Fund Centre (NPFC), a higher degree of care is required where a more significant risk is apparent in the circumstance; a failure to exercise even slight care or an extreme departure from the care required in a given circumstance would mean that the negligence is 'gross'.[268]

In a bid to unravel the meaning of gross negligence as construed in the contract of parties, courts had offered various definitions of the concept. Judicial opinion emanating from some cases shows that gross negligence involves a serious neglect for a palpable breach;[269] that conscious or intentional wrongdoing is not a component of gross negligence.[270] Also, it appears to differ from mere negligence in degree and not kind. Gross negligence has also been described as conduct that is 'truly culpable or harmful';[271] involving a high degree of careless conduct or 'negligently egregious' conduct. It has also been advanced that gross negligence comprises a conscious choice of conduct that involves a palpable or high degree of risk with severe consequences. Furthermore, it has been stated that for a conduct to constitute gross negligence, it must emanate from an objective determination.[272]

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[266] See Sommer's case (n 256) 554. This position was reiterated in the case of *Colnaghi USA Ltd. V Jewellers Protection Services Ltd,* 81 N.Y. 2d 821 [1993] *where the court stated that gross negligence differs "in kind, not only degree, from claims of ordinary negligence" and that gross negligence is "conduct that evinces a reckless disregard for the rights of others or 'smacks' of intentional wrongdoing*."

[267] See City of Santa Barbara's case at p.1099.

[268] Kuroshima Shipping **S.A.** Act of God Def. **&** Limit of Liab. Analysis, **2003** AM. MAR. **CASES 1681, 1693 (U.S.** Coast Guard Nat'l Pollution Funds Ctr. June **23, 2003)**, see also Water Quality Insurance Syndicate v. United States 632 F. Supp. 2d 108 (D. Mass. 2009); Martin (n 195) 1017.

[269] Liam Brown, 'Gross Negligence in Exclusion Clauses: Is there an Intelligible difference between Ordinary Negligence and Gross Negligence' (2005) 16 Insurance Law Journal 9.

[270] Armitage v Nurse [1998] 1 WLR 270; ANZ Banking Group Ltd v Intagro Projects Pty Ltd [2004] NSWSC 1054, pp.28-29.

[271] Metro Life v Noble Lowndes 84 N.Y.2d 430, 439 [1994].

[272] *Lester v Atchison, Topeka and Santa Fe Railway Co* **272** F 2 **d** 42, 47 [1960].

The Black's Law Dictionary defines Gross Negligence to wit:

> ***1.*** *A****,*** *lack of slight diligence or care. 2. A****,*** *conscious, voluntary act or omission in reckless disregard of a legal duty and of the consequences to another party, who may typically recover exemplary damages.*[273]

It is submitted that the jurisprudence of gross negligence does not follow a definitive pattern, it rather focuses on case-specific facts, hence the challenge of contractually describing what conduct amounts to gross negligence. Analytically, different definitional streams flow from the dictionary and judicial opinion regarding the meaning of gross negligence. The reference to 'lack of slight diligence or care', 'high degree of careless conduct' etc, presents it as a wrongful act which does not incorporate a mental element.[274] Hence, requiring the court to apply the 'reasonable man's test. The reference to 'want of or even scant care' reckless disregard' or 'reckless indifference', introduces the requirement of a mental element. It, therefore, invites the court to infer a state of mind on the party that committed the wrong. When the courts are left to decide as to whether gross negligence has occurred, there is a willingness to hold the operator grossly negligent or hold against an operator.[275] This reasoning may have informed the holding that BP was grossly negligent in the Macondo disaster.

3.1.3.2 Gross negligence: Meaning and application in the UK

What is gross negligence in the UK, and what circumstance(s) will give rise to it? The objective of a gross negligence clause is to prevent or protect a party from acts of sabotage or conducts and acts which fall below the requisite standard of care in a particular operation.[276] It is worth noting that gross negligence has no established legal foundation regarding its meaning in the UK. It means that the term "gross negligence" is subject to different interpretations, hence a subject of dispute.

In the UK, degrees of negligence are not recognised in the tort jurisprudence. However, negligence arising from the breach of a duty of care exists. In contracts, it is vital that the degrees of negligence are made to distinguish one form of negligence from the other to determining liability, especially in the oil industry. In law, a reference to negligence is clearly understood – A failure by a reasonable person to comply with the standard of care required by

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[273] Black's Law Dictionary, 9th edn. *sub verbo* "gross negligence".
[274] The jurisprudence of criminal law as advanced in Fowler v. Padget [1798] 101 ER 1103 requires a concurrence of the intent and the act to constitute a crime.
[275] Miles Pittman, 'Gross Negligence in Canadian Energy Contracts' (2013) 52(2) Alberta Law Review 309; Adeco Exploration Company Ltd v. Hunt Oil Company of Canada Inc. [2008] ABCA 214,437 AR 33 [Adeco]
[276] Ibid.

law.[277] It is posited that for a contract to provide for gross negligence, the act should be clearly defined and the conduct to be held responsible should be stated.

In the absence of a statutory definition of gross negligence under the UK regime, courts have attempted to capture its the meaning. Gross negligence is often used in drafting contracts in the hydrocarbon industry, but the lack of clarity as to its meaning persists. It has also been posited that gross negligence is no different from negligence and that under English Law, "negligence" is negligence. This view finds support in the cases of ***Wilson v. Brett***[278] and ***Pentecost v. London District Auditor***.[279]

It must be stated, however, that this view may not stand the test of today's hydrocarbon industry, as "gross negligence" is used often and deliberately. Recent decisions by English courts, as will be seen, have indicated that a distinction exists between "gross negligence" and mere negligence. As a result, there is no basis for asserting that negligence and gross negligence are the same. It has been argued that a separate and distinct meaning of gross negligence in the hydrocarbon industry is in tandem with the fundamental principles in the interpretation of contracts. It is vital to note that when contracts are interpreted, there should be a reference to all background knowledge that would have been reasonably available to the contracting parties,[280] and an interpretation that is in tandem with business common sense should be preferred.[281] The use of "gross negligence" in oil and gas contracts indicates that contracting parties intend to achieve a different outcome from mere negligence. The problem of definition and application, however, confronts the meaning of gross negligence as its meaning still receives multiple interpretations by English courts.

3.1.3.2.1 Gross negligence examined through the lens of the UK Courts

The court in ***Camarata Property Inc. v. Credit Suisse Securities (Europe) Ltd***[282] made a recent attempt to explain the concept of gross negligence. The focus of the court was not on the recognition or otherwise of the word "gross negligence" under English law, but on the meaning of the word as used by the parties in their contract. The court held the view that "gross negligence", from the contract of the parties, was intended to represent:

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[277] In law, for negligence to occur, a duty of care must exist; that duty must have been breached; and injury or damages must result. There appears to be no statutorily defined degrees of negligence in the UK.
[278] [1843] 11 M&W 113.
[279][1951] 2 KB 759.
[280] Investors Compensation Scheme Ltd v. West Bromwich Building Society [1997] UKHL 28.
[281] Rainy Sky SA & Ors v. Kookmin Bank [2011] UKSC 50.
[282] [2011] EWHC 479 (Comm).

"*something more fundamental than a simple failure to exercise proper skill and/or care to constitute negligence*" and that in plain language, it appears to "*embrace not only conduct undertaken with an appreciation of the risk involved but also serious disregard of or indifference to an obvious risk*".[283]

Ultimately, the court was descriptive and not definitive or precise about the meaning of gross negligence. The wording and content of the party's contract may have driven the court's interpretation and decision. It could be so as negligence and gross negligence were used in the contract, a suggestion that the parties intend that the degree of negligence is fundamental in distinguishing mere negligence from gross negligence. However, under English contract law, gross negligence remains undefined.[284] It can be deduced that traditional arguments on gross negligence support the view that "gross" adds little or nothing to negligence, giving that gross negligence is negligence "*with the inclusion of a vituperative epithet*".[285] A modern view supports the argument that "gross" does add something to negligence with a difference in degree and not kind.[286]

Again, when viewed from the context of the clause, the Court of Appeal per Beldam LJ held that "*In the context of [this clause], the words "gross negligence" … refer to an act or omission not done deliberately, but which in the circumstances would be regarded by those familiar with the circumstances as a serious error. The likely consequences of the error are clearly a significant factor. Thus, whether negligence is gross is a function of the nature of the error and the seriousness of the risk which results from it."*[287]

The court did not mention what action(s) constitutes serious error for gross negligence to arise, thus making gross negligence a subjective rather than objective concept. Leaving the concept of gross negligence open to a subjective approach presents significant challenges in application.

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[283] Per Andrew Smith J, in Camarata v. Credit Suisse case. The conduct is unknown and the person whose office is tied to the conduct is also not stated. The question is what conduct(s) is defined or stated as gross negligence? These conducts must be clearly stated in the contract for precision. The reasoning of the court in Camarata's case followed the interpretation of gross negligence by the court in The Ardent [1997] 2 Lloyd's Rep, 547, per Mance J.

[284] This position was advanced by the claimant in the Camarata's case wherein claimant argued that no distinction exists under English law between negligence and gross negligence. The court in Camarata's case merely focused on its meaning as used in the contract and not on its application under English law.

[285] Wilson v. Brett (n 265).

[286] Camarata's case (n 269).

[287] Great Scottish & Western Railway Co. Ltd v. British Railway Board, unreported, 10 February 2000, Court of Appeal.

It means that parties will still approach the court to determine, from the circumstance of their contract, the meaning of gross negligence.

Affirming the interpretation in ***Camarata's case*** that gross negligence is about the degree of negligence, the supreme court of Ireland in ***ICDL GCC Foundation FZ-LLC v. European Computer Driving Licence Foundation Ltd*** agreed with the reasoning of the lower court and held that gross negligence meant "*a degree of negligence where whatever duty of care may be involved has not been met by a significant margin*."

From the court's interpretation of gross negligence, there is a visible indication that the courts would interpret gross negligence to mean something more unique and involving greater guilt than ordinary negligence. However, no definitive ruling exists currently. This is so as the interpretation of gross negligence is not based on earlier dicta but based on the facts and context of every case. The concept of "gross negligence" is a tort that has no place under English law despite its continued usage by parties in their construction agreements.[288] However what then is the place of wilful misconduct in English law?

3.1.3.2.2 Willful misconduct

The concept of willful misconduct is another carve out used in oil and gas contracts to attach liability to a party at fault when a downside occurs. Oil and gas contracts reviewed in the UK under this study revealed the use of the word "willful misconduct" in contractual agreements. Amongst co-venturers, their agreement sometimes reflects that indemnities, as stated in the agreement, will be inapplicable where willful misconduct occurs. Albeit, a challenge exists as these words do not have a wholly settled meaning under English law.[289] Hence the possibility of misapplication or misinterpretation to the detriment of another party to the contract.

Construing the meaning of "willful misconduct", the court in ***Graham v. Belfast and Northern Counties Railway Co***.[290] posited that "willful misconduct … means misconduct to which the will is a party as contradistinguished from an accident, and is far beyond any negligence, even gross … negligence …" Adopting the position of the court in ***Graham's case***, the court in ***Forder v. Great Railway Company***[291] added that willful misconduct includes "*acting with*

[288] James Pickavance, 'Gross Negligence in Construction Contracts: Law and Practice' (Eversheds, 2015) <https://www.eversheds.com/documents/services/construction/04369%20-%20Construction%20Article%20-%20Jan%202015_v4.pdf > accessed 9 May 2016. Gross negligence is still viewed as simple negligence under English law.
[289] Gordon, (n 3) 348.
[290] [1901] 2 IR 13.
[291] [1905] 2 KB 532; see also Laceys Footwear Ltd v. Bowler International Freight [1997] 2 LL Rep 369; [1997] EWCA Civ 1454 and TNT Global v. Denfleet International Ltd (2007) EWCA Civ 405 where the Court of Appeal

reckless carelessness, not caring what the results of his carelessness may be". The court in ***De Beers UK Ltd v Atos Origin IT Services Ltd***[292] interpreted a contract that limited the liability of a defendant but excluded the limit in the event of willful misconduct or deliberate default. In arriving at its decision, the court held that "willful misconduct was conduct by a person who knows that he is committing and intends to commit a breach of duty or is reckless in the sense of not caring whether or not he commits a breach of duty."

A reckless disregard for stated duty is a question of fact based on the circumstance of each case. It is clear that the court gave the concept of willful misconduct a subjective interpretation. What is willful misconduct is based on the party's evaluation, hence, open to debate between parties? From the above, it means that in willful misconduct, an element of knowledge of the wrongful act must exist. The knowledge of the wrongful act must also be subjective with a deliberate action to proceed to take the risk. In other words, the party committing the willful misconduct must be conscious that he is committing or intend to commit a breach of duty that is reckless, without caring about it. Under English, there is no clear definition of willful misconduct apart from the reasoning that willful misconduct encompasses knowing or not caring that a particular act is wrong under a contract. Willful misconduct relates more to private contract.

3.2 Gross negligence in drilling contracts: A working definition

The analysis and discussions above indicate that gross negligence has no settled meaning in tort law. Again, judicial interpretations of gross negligence, as seen above, have leaned towards the term being a concept applied from a tortious perspective, with "intention" as a key element. However, an examination of the concept indicates that it did not emanate from tort, but bailment, and applied in contracts. A fundamental aspect of risk allocation in the oil industry is that liability is based on contract and not tort. Thus, the meaning and application of gross negligence ought to reflect the philosophical underpinnings in the law of contract and not tort law. This contractual dimension enables a definition that will apply as a term of art in contracts. The historical evidence from bailment and the contractual underpinning of gross negligence between the operator and contractor in the oil and gas industry enables this study to define

held that "wilful misconduct is more than negligent misjudgement, and either an intention to do something which the actor knows to be wrong or reckless act in a sense that the actor is aware that loss may result from this act and yet does not care whether loss will result or not".

[292] [2010] EWHC (TCC)

gross negligence to wit: ***gross negligence is conduct that falls far below the standard of a reasonable person in the circumstance.***

In the definition above, the phrase "the *standard of a reasonable person*" refers to or could be used interchangeably with the words "*good oilfield practice*". This practice is the required pattern of conducting oil and gas operations and it is contained in codes of practice of the oil industry such as in the American Petroleum Institute (API) standards of practice. Good oilfield practice is generally referred to as those methods that are generally accepted as good and safe during petroleum exploitation or recovery operations.[293] With the '*far below'* test as provided in our definition, it will be easy for a reasonable man or the court to hold that the conduct of a party to a contract fell *far below* the required standard. Put differently, gross negligence is a "*major"*[294] *or "marked departure*"[295] from the expected standard of care. The difference between negligence and gross negligence does not lie in conscious risk-taking. They may overlap in a certain respect, but gross negligence cannot be equated with negligence as the latter is simply a failure to comply with a particular standard of conduct(s). Gross negligence is also not a state of mind, as a person's conduct may amount to gross negligence committed in good faith, without wilfulness or dishonesty, while it is not his intention to be grossly negligent.[296]

It is conduct evaluated without regard to the actor's particular state of mind, rather reference is made to how unreasonably dangerous or severely awful the conduct was under the circumstance.[297] The person's actual mental features and qualities, abilities and habits, reactions and processes, are not among the circumstances which could be considered in determining whether a person's conduct was reasonably safe.[298] The law sets up an external standard for the protection of society, the ordinary reasonable man. It seeks to protect society from conducts, not states of mind, which is unreasonably likely to cause harm. As a result, the specific mental state which causes gross negligence is not essential in determining liability.[299]

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[293] IADC, 'Drilling Lexicon' (*Oil and Gas Drilling Glossary,* 29 October 2013) < <http://www.iadclexicon.org/good-oilfield-practice/> accessed March 2019; M.ichael Bunter; 'World-wide standards of Good Oilfield Practice - The Impact of the blow-out, deaths and Spill at the BP Macondo well, MC 252/1-01, US Gulf of Mexico' (2013) 2 OGEL , <www.ogel.org/article.asp?key=3356>
[294] Crimes Act 1961 (N.Z.), S. 150A.
[295] McCulloch v. Murray [1942] S. C. R 141, 145 per Duff C.J.
[296] Spread Trustee Co. ltd v. Hutcheson [2011] UKPC 13; [2012] 2 A.C 194 per Robin Auld.
[297] Howard (n 212) 342.
[298] Edgerton, H. W., "Negligence, Inadvertence, and Indifference: The Relation of Mental States to Negligence", (1962) 39(7) Harvard Law Review 857.
[299] Ibid, at 856.

Although the difference between negligence and gross negligence lie in degree and not kind, the latter focus on whether the conduct was a *"clear departure*" from the reasonable man's standard and not only the degree of departure.[300] For this study, where the conduct of a party to an offshore hydrocarbon contract fall *far below* the conduct of a reasonable oil field practice, such party will be held liable for gross negligence, but where it is a mere failure to comply with particular standards, such conduct shall be regarded as negligence, and the party shall not be liable. This reasoning may lie at the philosophical foundation of operator and contractor indemnity contract where carve-outs apply. Gross negligence is sometimes used as a ground for terminating a contract, or as a basis for indemnification by the other party, or to by-pass a waiver of liability or a cap on indemnification which would have benefitted the other party.[301]

Negligence is the failure to conform to a required standard of behaviour. Gross negligence is a "*marked departure*" from the required standard of behaviour. Gross negligence requires a high standard of proof,[302] whereas, in negligence, the standard of proof is low. All the plaintiff needs to prove in negligence is that the defendant did not exercise care, and as a result, he has suffered harm/loss. In some states in the US such as New York, for a plaintiff to prove gross negligence, the law requires that the plaintiff must show that the defendant's conduct display "reckless indifference to the rights of others".[303] The conduct must show a failure to exercise the necessary care in the circumstance or demonstrate a total disregard for the rights and safety of others. The gross negligence standard focuses on the severity of a party's deviation from the required standard of care as opposed to mere negligence.

In the oil industry, negligence is allowed in the risk allocation practice because of the positions of the parties and the nature of the industry. It is important to state that the difference between negligence and gross negligence exist in contract, and not tort law. This is because, in tort law, the negligence or gross negligence of a party does not exclude the party's liability. Whereas in oil and gas contracts, the former and the latter are used to distinguish a situation when the responsible party will be liable for his conduct. That is, negligence does not result in liability, whereas, gross negligence does. Often, gross negligence is used to represent conduct that is severely wrongful.

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[300] Per Robin Auld in Spread Trustee Co ltd v Hutcheson, 117.
[301] Ken Adams, 'Using the Terms 'Negligence and Gross Negligence' in a Contract' (*Adams drafting*, 10 September 2012) < http://www.adamsdrafting.com/negligence-and-gross-negligence/ > accessed 20 April 2018.
[302] Shine, (n 256) 10.
[303] Ibid.

It can be assumed that the reason parties include gross negligence as a carve-out for liability in hydrocarbon contracts is to check moral hazard, promote public policy, and prevent deliberate acts of sabotage by none risk-bearing parties in a contract. For gross negligence to apply in oil and gas contracts as a term of art, its meaning must be clear, so that the purpose of its inclusion in contracts as a liability trigger will be achieved. An application of the definition proposed in this study will reflect the contractual underpinning and guide the court in determining what conduct amount to gross negligence.

Gross negligence in the oil and gas industry should be understood by focusing on seriously wrongful conducts of parties to a contract. The understanding of parties in the hydrocarbon industry is for gross negligence to apply as a liability trigger, while mere negligence will not. Parties intend to share risks, while also taking responsibility when liability results from certain conducts that have been excluded in the contract. They intend that their contract will determine their liability but not torts. The allocation of risk follows parties benefit and contractual advantage. It is important to point out that indemnity contracts in the oil and gas industry are about risk sharing through contractual agreement and not tort law, focusing on injury and death of personnel, damage to property, and pollution damage.

It should be pointed out that, in the oil industry, huge financial liability applies where a party is found to be grossly negligent in his conduct. In the US jurisdiction, it is classified as punitive damage. Someone may argue that if gross negligence leads to unlimited liability, it will fall under the second limb of ***Hedley v Baxendale***. The second arm of the case deals with damages "*as may reasonably be supposed to have been in the contemplation of both the parties at the time the contract was made*".[304] Losses under this limb are classified as indirect loss as they do not arise naturally from the contract but could be contemplated by both parties.

What this means is that pollution damage resulting from grossly negligent conducts could lead to unlimited financial liability. On the other hand, death or injury to personnel and property damage could be classified as direct losses as they naturally flow from the contract. Their occurrence does not lead to unlimited liability, even when a party's conduct is adjudged to be grossly negligent. This underpinning guides the oil industry's approach to risk allocation.

[304] Hedley v Baxendale (n 5).

It is worth noting that the oil industry regard unlimited liability, the result of a finding of gross negligence, as an indirect loss, by focusing on the size of the cheque. The industry believes that substantial financial liability is what did not arise naturally from the contract, although it could be expected in pollution cases (indirect loss). This study notes that gross negligence is conduct; as such, it is focused on wrongful acts which fall far below the expectation of good oilfield practice. This study notes that gross negligence is a corporate conduct carried out by a company employee. Its definition of gross negligence is not dependent on the extent of liability or whether the damage cause losses that did not flow naturally from the contract. The degree of the conduct is our guide. It is concerned with conducts which run contrary to public policy and how to deter such acts from continuing. In essence, the extent of the wrongful conduct determines whether it is gross negligence or not.

Gross negligence is a regulatory concept which overrules the contractual consequence (indemnity); the temptation for the contract drafter is then to build in a contractual consequence to deal with that regulatory outcome. When new contracts are entered into, it will be worded differently knowing that the generic term of gross negligence must be complied with. It means that a party cannot rely on the indemnity arrangement in full once the threshold of gross negligence is met. This threshold is used to limit the contractual movement of liability between parties. In torts, distinguishing negligence does not exclude liability except provided by statute. In this regard, gross negligence makes more meaning to the operator and contractor in addressing their unique circumstance since it applies as a carve-out to promote their contractual underpinning, check moral hazard and promote public policy in the offshore hydrocarbon contracts.

3.2.1 Gross negligence in criminal law

Outside the realm of contract, particularly in criminal jurisprudence, UK courts had had cause to determine guilt by reasoning along the lines of conducts that falls *far below* the required standard in gross negligence manslaughter. In determining whether there was a breach of duty that amounted to gross negligence manslaughter, the court in ***R v. Sellu,***[305] stated that the task before the jury was not just *"to decide whether [the defendant] fell below the standard of a reasonably competent consultant colorectal surgeon, but whether he did so in a way that was gross or severe".* The defendant's appeal was allowed because the trial Judge failed in assisting

[305] [2016] All ER (D) 114 (Nov); [2016] EWCA Crim 1716.

the jury to identify the line that separates serious errors from conduct which was "*truly exceptionally bad and was such a departure from that standard [of a reasonably competent doctor] that it consequently amounted to being criminal*". For a person to be guilty of gross negligence manslaughter, his/her conduct must be severe. Mere negligence will not lead to a finding of guilt.

In a similar case where the conviction was upheld, the trial Judge had accurately brought to the jury's attention the fact that the prosecution had to make them sure that the defendant's conduct was *"truly, exceptionally bad*" before they could find her guilty of gross negligence manslaughter.[306] These cases show the application of an interpretation akin to the definition by the English court. If gross negligence is still applicable in other areas of English law to demonstrate the degree of carelessness that will attract liability, it can be safely applied in contracts between parties in the oil and gas industry to distinguish between conducts that will occasion liability and that which will not result in liability.

3.2.2 Gross negligence and public policy in offshore drilling contracts

This study has already stated that gross negligence, when applied through mutual indemnity clauses, operates as a ground for liability or non-liability in offshore oil contracts, depending on the model form used and parties involved. The liability or absence of it can be understood from the language of the parties in the agreement. However, public policy is against contracts that allow a party to use a mutual indemnity agreement as a shield against liability for gross negligence.[307] Public policy operates to ensure that compensation for damage is paid to victims and that the party responsible for the wrongful conduct in a contract is obligated to answer for his wrong to discourage bad oilfield practice that could result in conducts that may harm society or result in a loss to a contracting party.[308]

From a general perspective, an act is said to be contrary to public policy if the act tends to promote breach of the law, of the policy behind a law or tend to harm the state or its citizens.[309] Under common law, agreements that are not compatible with a public policy are unenforceable.[310] The reason is expressed in the Latin phrase *"contra bonos mores",* which

[306] Bawa-Garba v. R [2016] EWCA Crim 1841 (08 December).
[307] Engerrand (n 26) 326.
[308] Kelleher (n 18).
[309] Duhaime's Law Dictionary, 'Public Policy Definition' <http://www.duhaime.org/LegalDictionary/P/PublicPolicy.aspx> accessed 25 April 2019.
[310] Restatement (Second) of Contracts § 195 (1979).

simply means contrary to public policy or morals.[311] Ex-ante, public policy serves as a caution to private parties that the courts will not endorse contracts prejudicial to public interests. Where parties have already entered into such an agreement, public policy then plays the anchor role in justifying an invalidation of the contract even where there exists no evidence of the contravention of a particular legal obligation.[312] The main reason for this non-enforcement by courts, of contracts that run contrary to public policy, is to deter or discourage contracting parties from bargains that are not compatible with public policy in the first place.[313] This study notes that the fact that the courts have not discouraged the practice of using mutual indemnity as a protection against liability for gross negligence have encouraged operators and contractors to continue the practice. What can be deduce from the BP and Transocean agreement is that the contract facilitated complacency which harmed public interest.

Although this general principle is undisputed, courts sometimes have challenges in its implementation. A typical example is when public policy violation came up for consideration before Judge Carl Barbie in the BP case. It is worthy of note that where a given clause in an agreement conflicts with public policy, it does not necessarily render the entire contract unenforceable. Albeit, this will depend on whether the exact clause is separable from the contract or not.[314] In both developed[315] and developing[316] countries, there exist a convergence in recognition of public interests and the types of agreements considered to be contravening public policy and good morals. From a general point of view, a contract that does not include the commission of a legal wrong is held to be unenforceable for being contrary to public policy when its likelihood to harm public interests is obvious.[317] In ***Kalisch-Jarcho v. City of New York,*** it was held that an exculpatory agreement will not absolve a party from liability in all circumstances, no matter how flat and unqualified the terms are. The reason is that public policy will not apply to indemnity for grossly negligent acts.[318] Again, contracts that are intrinsically

[311] Jeanne Cilliers, 'When Contracts against Public Policy are Void, (1994) 2(3) Juta's Business Law 139.
[312] Zeeshan Mansoor, 'Contracts Contrary to Public Policy under English and Dutch Law: The Case of Agreements Commercialising the Human Body' (2014) 1 European Journal of Comparative Law and Governance 297-298.
[313] Adam Badawi, 'Harm, Ambiguity, and the Regulation of Illegal Contracts' (2009) 17(2) George Mason Law Review 483.
[314] Cilliers (n 311).
[315] Mansoor, (n 312) 297.
[316] Matthew Kruger, 'The Role of Public Policy in the Law of Contract, Revisited,' (2011) 128 South African Law Journal 712.
[317] William S.M. Knight, 'Public Policy in English Law', (1922) 38 Law Quarterly Review 207.
[318] Kalisch-Jarcho v. City of New York, 448 N.E.2d 413, 416 (N.Y. 1983).

tied to the public interest have been declared unenforceable for violating public policy objective.[319]

As earlier stated, the enforcement of public policy concerning contractual agreements has been described as a unified and easily applied doctrine, but with challenges when applying it to parties in a contract. This challenge in the application has led some scholars to refer to it as an "unruly horse". This is based on the notion that public policy provides an opportunity for judicial law-making and flexibility as society's perception of what constitutes "public policy" changes.[320] Public policy is often criticised since it involves the use of a particular set of values and policy considerations, including those of justice, fairness, and equity. As a result, when applied without care, it is likely to result in uncertainty in a contract. The criticism against public policy has often been stated, quite illustratively, through the use of a figurative horse. A long time ago, Burrough J noted thus: "*I, for one, protest, as my Lord has done, against arguing too strongly upon public policy. It is a very unruly horse, and when once you get astride it you never know where it will carry you." Riciardson v Mellish Bing 229 at 252. And, in Driefontein Consolidated Mines Ltd vjansen (1901) 17 TLR 604 at 605, A L SMITH MR carried the analogy further and said: "This public policy is a high horse to mount and is difficult to ride when you have mounted it." If I may be permitted to add to this equine analogy, frequently, as in the present case, this high horse attempts to stampede in opposite directions at one and the same time.*"[321]

Despite the above judicial view, public policy has hitherto been accepted as a basis on which a court may decline to enforce the terms of an agreement, notwithstanding that the parties have freely and voluntarily accepted these terms.[322] Indeed, public policy has now become firmly recognised as an instrument of judicial control over contractual enforcement. An old legal maxim, *nullus commodum capere potest de injuria sua propria*, provides that no one could benefit from his or her wrongful act. In a modern context, this translates into whether it is likely for a person to be grossly negligent in its conduct, and still use mutual indemnity agreement as a protection against liability, to his benefit.

[319] Md. National Capital Park & Planning Commission v. Wash. National Arena, 386 A.2d 1216, 1229 (Md. 1978); Wolf v. Ford, 644 A.2d 522, 525 (Md. 1994).
[320] Sacha Judd, 'The Unruly Horse Put Out To Pasture: The Doctrine Of Public Policy in the Modern Law Of Contract' (1998) 8 Auckland University Law Review 686.
[321] Mabao &others v Nel's Melkery (Pty) Ltd 1979 (4) SA358 (W) at 361-2.
[322] Kruger (n 316) 12.

At its most basic level, public policy is the avenue by which the society, through the courts, maintain some form of control over the contractual dealings of individuals. Although by the nature of the principle of freedom of contract, individuals are generally free to enter into contracts with whom and on what terms they think fit, and the courts will, by way of the principle of *pacta sunt servanda*, generally enforce these agreements. However, the courts have thought it essential to retain a residual power to reject the enforcement of the terms of a contract when to do so would be contrary to public policy.

Public policy, by its standard nature, is dynamic and dependent on the context it is to apply. This is unlike rules that may be static. In the absence of a context, public policy has little or no practical meaning or content. It functions as an assemblage of broad principles and more specific rules of contract law. When courts examine these principles and rules of contract law, which are regarded as policy considerations by the courts, it is enabled to give meaning and content to the concept of public policy. One of the essential features of public policy is the fact that it is not a static concept - it is dynamic - its content evolves just like social conditions and basic freedoms advances. It is worth noting that he dynamic posture of public policy means that there is no closed list of considerations to which a judge is limited to when discussing public policy.[323] As a result of this understanding, it means that a judge, when faced with a public policy question, is armed with a 'basket' of policy concerns. From this 'basket' the Judge is obligated, in a particular case, to select those concerns which are significant to the facts of that case, and then to balance these considerations against each other to determine whether a given contractual provision should be enforced or not. The result of this identification and balancing process is what the courts refer to as public policy.

Furthermore, on the grounds of public policy, a contract is unenforceable if a particular piece of legislation prohibits its enforcement or if the enforcement of the interest in the contract is outweighed in the circumstance by a public policy against the enforcement of such provision. In this regard, a determination as to whether a contract is unenforceable on the grounds of public policy depends on the context which requires a consideration of the facts of a given situation and the public policy concern applicable to that situation.[324] In the Restatement of Contract, it has been stated that the public interest in the enforcement of the specific term, among other things, is a factor that should be taken into account in weighing the interest in the

[323] Ibid, at 713.
[324] John Lillig, 'Magic or Misery: HBCUs, Guarantee Contracts, and Public Policy' (2009) 6 DePaul Journal of Sports Law & Contemporary Problems 41, 57.

enforcement of a given provision. Again, in considering a public policy against enforcement of a contractual term, it has been noted in the Restatement of Contract that regard should be on "(a) *the strength of that policy as manifested by legislation or judicial decisions, (b) the likelihood that a refusal to enforce the term will further that policy, (c) the seriousness of any misconduct involved and the extent to which it was deliberate, and (d) the directness of the connection between that misconduct and the term".*[325]

A fundamental point of convergence in the public policy discussion is that the focus is on contracts that are against public interest or may cause harm to the public.[326] It is context specific and relates to contracts where elements of public harm are evident. In these cases, the court will invalidate or refuse to give effect to the terms of a contract which invalidates liability for gross negligence. As already noted, gross negligence as applied in mutual indemnity agreements affects public interest since it encourages a party to engage in conducts that are severely awful. This is against public morals, fairness and public safety especially as the end result of such conduct leads to harm on society.

Allowing a party to indemnify against the gross negligence of another party may not prevent a third party from receiving compensation since the contractually responsible party will pay. But it places the responsibility of actual payment on another party. This could encourage conduct that causes harm to society and loss to a contracting party. Public policy mandates the avoidance of negative externalities through good oilfield practice to prevent the harmful effect on the public.[327] From the discussion above, public policy is against contracts that are against public interest or cause harm to the public. To enforce an indemnity contract that provides a shield against liability for gross negligence is against public interest. This is so because the result of gross negligence, as seen in the Macondo disaster, leads to harm against the society and also places the other contracting party in a position where he takes responsibility for another party's gross negligence.

As a principle, public policy states that no person or government official can legally perform an act that tends to injure the public.[328] The unenforceability of the contract does not arise from

[325] Restatement (Second) of Contracts § 178 (1981).
[326] John Plattner, 'Contracts - Public Policy - Contracts against Liability for Negligence' (1960) 36 (2) North Dakota Law Review 141.
[327] Farshad Ghodoosi, 'The Concept of Public Policy in Law: Revisiting the Role of the Public Policy Doctrine in the Enforcement of Private Legal Agreements' (2016) 94 Nebraska Law Review 713.
[328] The Free Dictionary, 'Public Policy' <https://legal-dictionary.thefreedictionary.com/Public+Policy > accessed 27 April 2018.

legally recognised vitiating elements of a contract, but from factors that will infringe specific policies entirely independent of the parties' agreement. These factors may rest on the law or court initiatives that such agreement could harm the public.[329] This is based on social laws and founded on the principle that the enforcement of a contract may be denied where it will cause injury to the public good[330] or where its harmful tendency is clear.[331] However, some injury to the public may be allowed due to perceived economic efficiency,[332] or the social utility of the activity. However, there is a limit to which public policy would allow private legal acts of citizens (freedom of contract), especially in cases of gross negligence. If a public policy outweighs the interest in a contract, such contract will be unenforceable.[333]

Public policy is a genuinely trans-substantive legal doctrine that exists in all legal systems as a ground for refusing the enforcement of certain legal contracts.[334] It consists of three distinct, yet interrelated, notions of public – public morality, public interest and public safety. It is discussed in the sense of policies pursued and enacted by governments;[335] as a rule that supersedes parties' contractual agreement; as a policy that limits the application of foreign law in the conflict of laws;[336] and bars the enforcement of foreign arbitral awards or judgments.[337] An exact definition of public policy may not be possible due to its multidimensional character. However, Lord Truro's classical definition has been re-echoed in several courts in the United States. In the notable case of ***Egerton v. Brownlow***, Lord Truro stated that "*public policy is that principle of law which holds that no subject can lawfully do that which had a tendency to be injurious to the public, or against the good of the public … in relation to the administration of the law*".[338] It has also been stated that public policy is a principle of judicial legislation or interpretation established on the present needs of the community.[339]

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[329] H G Beale and others, *Contract: Cases and Material* (5th edn, Oxford University Press 2008) 1069.
[330]The free Dictionary (n 328).
[331] Edwin Peel, *The Law of Contract* (13th edn, Sweet & Maxwell, 2011) 485.
[332] Ghodoosi (n 327) 708.
[333] Note, 'A Law and Economics look at Contracts against Public Policy' (2006) 119(5) Harvard Law Review 1449. Other circumstances where a contract will be unenforceable include where the act is ab ignition illegal; it is illegal to make certain promises in the contract, even where what is promised might be legally performed; the promised performance is illegal; a provision is included for a condition in violation of law.
[334] Ghodoosi (n 327) 713.
[335] Clarke E Cochran and others, *American Public Policy: An Introduction* (10th edn, Wadsworth 2012).
[336] Herbert F Goodrich, 'Public Policy in the Law of Conflicts' (1930) 36(2) West Virginia Law Quarterly and the Bar 152.
[337] Ghodoosi (n 327) 698.
[338] Egerton v. Brownlow [1853] 10 Eng. Rep. 359, 437 (H.L). In Hornor v. Graves [1831] 131 Eng. Rep. 284, 287, the court provided a similar definition when it stated that "*whatever is injurious to the interest of the public is void, on grounds of public policy.*"
[339] Percy H Winfield, 'Public Policy in the English Common Law' (1928) 42(1) Harvard Law Review 77.

In ***Richardson v. Mellish***,[340] the court called public policy "a very unruly horse" because its application may extend to transactions not expressly prohibited by legislation. In this regard, some scholars argue that public policy lies in legislative and not judicial discretion.[341] It has been stated that the legislator, and not the court or parties, should determine public policy.[342] However, the enforcement of private legal contracts could be prevented due to their conflict with a public policy deduced from a legislation, rules made by a court,[343] or even a policy without legislative source. Discerning a public policy without legislative source could resemble a common law adjudicative approach, it could be broader than this.[344] Public policy could be conceived under the law and economic approaches to wit: as a protection for parties in the contract (paternalism); as a protection for third parties outside of the contract (negative externalities); and as a means of redistributing wealth.[345]

Regarding contracts that should protect third parties, some scholars hold the view that contracts which may result in pollution and contracts that prevent competition will have an adverse negative impact on third parties, as such, should not be enforceable.[346] While this view is debatable, it may be safe to say that the keyword should be "adverse negative impact" and not just a negative impact on third parties. This is so as there are contracts which social utility benefit third parties but may still impact them. In this vein, contracts allowing the enforcement of indemnity clauses for mere negligence resulting in harm could be allowed. However, where the contract allows certain party to use certain provisions as a defence for its gross negligence, public policy would prevent the enforcement of such clause. As a general rule, the limitation of liability for gross negligence is not allowed under common law, the rationale being the protection of others against unreasonable risk of harm.[347] Public policy stands as a barrier to contractual terms, which overall aim is against society.[348]

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[340] Richardson v. Mellish [1824] 130 Eng. Rep. 294, 303.
[341] John Shand, 'Unblinkering the Unruly Horse: Public Policy in the Law of Contract' (1972) 30(1) Cambridge Law Journal 144.
[342] Ibid.
[343] Ghodoosi (n 327) 694.
[344] David A Friedman, 'Bringing Order to Contracts against Public Policy' (2012) 39 Florida State University Law Review 563, 605.
[345] Ghodoosi (n 327) 709.
[346] Frank H Easterbrook and Daniel R Fischel, *The Economic Structure of Corporate Law* (Harvard University Press 1996) 23.
[347] Imran Naeemullah, 'Strong Headwinds: Statutes, Responsibility-Shifting, and Public Policy Continue to Frustrate Indemnity Agreements in the Offshore Oil and Gas Industry' (2013) 38(1) Tulane Maritime Law Journal 281.
[348] Ghodoosi (n 327) 710.

On gross negligence and public policy, there are divergent judicial opinions on whether gross negligence invalidates an indemnity provision or not. In the U.S case of ***Becker v. Tidewater Inc.***,[349] the court held that gross negligence invalidates an indemnity provision as it is contrary to public policy. However, in the B.P case, the court enforced an indemnity against gross negligence.[350] Judge Barbier in the B.P case distinguished a "*release*" from an "*indemnity*" on the ground that the former was an absolution from liability to the other party while the latter allocate the risk of liability to a third party. He stated that the ***Becker and Houston*** cases were a contractual release from liability for harm suffered by the other party to the contract. In terms of public policy considerations, the Judge held that in the B.P case, the reciprocity of liability under the indemnity agreement provided protection against reckless behaviour. Also, unlike a release, indemnity still provides an opportunity for an injured party to seek judicial redress. Judge Barbier noted that it is not inconsistent with the Oil Pollution Act 1990 (OPA) for a party to be indemnified even where he is guilty of gross negligence.[351] It must be stated, however, that receiving an indemnity for grossly negligent conducts does not encourage good oilfield practice that could prevent for the interest of the public. It only encourages bad oilfield practice that could result in harm to third parties, and this is against public safety.

Apart from Judge Barbier, the judicial authorities cited above appear to invalidate the enforcement of gross negligence in contracts on the grounds of public policy. Judge Barbier's distinction between a "release" and an "indemnity" is commendable. However, his decision did not consider the impact of the contract on the parties and the intention of the legislature as captured in section 1004 of the OPA, 1990. While a reciprocal indemnity tends to absolve each party from liability, it also serves the purpose of making whole an injured party to the contract.[352] The latter purpose is to stick to the meaning of indemnity than the former. The decision may enable a party to a contract to avoid its financial responsibility even when that will further harm the other party.

Arguably, Barbier's decision creates an unjustified difference as a vital rationale for contractual indemnity is to provide financial security for each other. It has been stated in this

[349] Becker v. Tidewater, Inc., 586 F.3d 358, 367, 2010 AMC 945, 953-54 (5th Cir. 2009). The court's decision on gross negligence was guided by the decision in Houston Exploration Co. v. Halliburton Energy Services, Inc, 269 F.3d 528, 531 (5th Cir. 2001) and Todd Shipyards Corp. v. Turbine Services, Inc., 674 F. 2d 401, 411, 1982 AMC 1976, 1987-88 (5th Cir. 1982).
[350] In re Oil Spill by the Oil Rig "Deepwater Horizon" 841 F.Supp. 2d 988, 1003, 2012 AMC 982, 1000 (E.D. La. 2012).
[351] Ibid 1001-02, 2012 AMC at 998-1000.
[352] Naeemullah (n 347) 290.

study that one of the strands of public policy is the protection of the parties in a contract (paternalism). This study posits that public policy should prevent the enforcement of contracts that are likely to encourage inappropriate conducts that could cause injury to parties and society to de-incentivise would-be defaulters and encourage them to engage in good oilfield practice.

Again, the judgement did not consider the provision of section 1004 (c) (1) of the OPA, 1990. The said provision would attach unlimited liability to a responsible party if his conduct was adjudged to be grossly negligent. The essence of that provision is to de-incentivise severely awful oilfield practices that could harm the environment and man. The public policy in the section is manifestly clear. The provision does not encourage gross negligence; it is rather a disincentive against bad oilfield practice. Under section 1004 (a) (3) of the OPA, liability is limited to promote petroleum activities. However, it is unlimited when gross negligence is involved. By virtue of the above section, Parliament intends to protect the public from the extreme impact of petroleum operation or the careless conduct of actors engaged in a contract to drill for hydrocarbon.

The mischief which the provision is trying to correct is bad oilfield practices that could cause fundamental harm to the public. The mischief rule is used in statutory interpretation. Courts apply this rule to ascertain the intention of the lawmaker with the objective of discovering the mischief and defect in a particular legislation in order to provide a solution.[353] The prohibition of practices or conducts that are grossly negligent during drilling operations is in the interest of the public. The court could have applied the mischief rule of interpretation to enable it to arrive at a conclusion that the contract between BP and Transocean, which shields parties against liability for gross negligence, was incompatible with public policy. Section 1004 (c) (1) is a disincentive against gross negligence, and also makes a responsible party liable without limit, if found to be grossly negligent. Arguably, it could be stated that the Exxon Valdes oil accident in Prince Williams Sound, Alaska, which caused great damage to several people and the environment, is the mischief that the said provision is trying to address.

In law, preventing adverse negative externalities through contract is a function of public policy.[354] Negative externalities refer to situations where the exercise of a right in law or the manufacture of a product in economics incurs a cost that overshadows the benefit it gives to society. A classic example is offshore oil pollution damage. Hydrocarbon operations

[353] USLEGAL, Mischief Rule Law and Legal Definition, < https://definitions.uslegal.com/m/mischief-rule/> accessed 25 April 2019.
[354] Ghodoosi (n 327) 713.

sometimes result in pollution damage. Although such damage is followed by a fine, the extracted hydrocarbon is used to generate energy for the benefit of society. However, if indemnity agreements that allow gross negligence are enforced, the resultant damage (a disincentive for pollution prevention) to society will outweigh the benefit of drilling hydrocarbon for public use. Gross negligence could result in catastrophic damage which has been seen to produce adverse effects on parties to a contract and third parties alike.[355]

The prevention of negative externalities is a rationale for government intervention through regulations and the enforcement of standards to prevent as much as possible, the adverse implications. ***Will the use of mutual indemnity as a shield against gross negligence work against public policy*?** This study answers in the affirmative in the light of the above arguments and the causal connections of parties to the Deepwater Horizon disaster as contained in the B.P Commission's report. A fundamental reason is that enforcing gross negligence in indemnity contracts will encourage *the risk of accidents by removing the … contractor's incentive to undertake accident-prevention measures … to avoid a risk of harm to third parties*.[356]

Allowing a party at fault to benefit from mere negligence cases may serve the economic efficiency of public policy[357] in operator and contractor indemnity agreement. This is so as the end product of their relationship leads to making petroleum available for general public consumption. It will also work in tandem with the "market practice" of risk allocation in the oil industry, balance the risk and reward system in the oil industry and the philosophical underpinning of the parties. It could prevent over-deterrence and will not stifle operator and contractor agreements. Distributive justice may also be ensured as the operator who takes more benefit from the petroleum operations, bears more burden – allowing indemnity for contractor's negligence resulting in harm. Certain conducts, arising from the nature of the activity or the contractual relationship of parties, ought to be separated from other conducts. The reason for the separation will be to discourage dangerous conduct and not punishing ordinary wrongs. Varying the degree of care is a valuable method that will facilitate the achievement of an appropriate balance between liability and non-liability for harm and losses in drilling contracts**.**

If mutual indemnities are not subject to gross negligence in risk allocation, it could lead to a situation where the cost of petroleum extraction outweighs the benefit arising from its negative

[355] The Macondo oil spill in the Gulf of Mexico impacted businesses, fishermen, tourists, and local communities that live close to the sea.
[356] Kelleher (n 18); National Union Fire Ins. Co. v. Nationwide Ins. Co., 69 Cal. App. 4th 709 (Jan 28, 1999).
[357] Ghodoosi (n 327) 708.

externalities to society.[358] An example is the Deepwater Horizon accident. Not allowing a party at fault to take advantage of gross negligence in indemnity contracts would be in the interest of public safety, public morality, and it will deter behaviour that may result in harm to society.[359] To allow gross negligence in oil indemnity contracts could mean stretching the public efficiency limit too far. Public safety could be threatened, as moral hazard may set in during offshore petroleum operations. The Latin maxim "*ex turpi causa non oritur actio*" (no man should be permitted to profit from his own wrong) in contracts, accords with the public policy doctrine as deterrence for public protection.[360]

Moral hazard occurs when an insured injurer changes his behaviour the moment a particular risk is removed from him.[361] Enforcing gross negligence in offshore oil contracts could lead to the discouragement of harm-prevention during petroleum operations. Thus, increasing the risk of accidents and harm to the public. When liability for certain acts such as gross negligence is taken off a party, he will exercise less care in his actions, and the deterrent effect of the law will be weakened, thus creating moral hazard.[362] The latter could result in harm, and harm is what public policy seeks to deter or discourage to protect society. Public policy has an interest in deterring and placing liability on those who occasion gross negligence, by making the party at fault shoulder the burden of his wrong as deterrence and /or disincentive for wrongful conduct.[363] It has been stated that the public policy of deterrence and liability will not be served if one party is allowed to indemnify against the gross negligence of another party.[364]

In the English legal system,[365] as in other legal systems around the globe, any contract which promotes the breach of a law, or the policy behind a law, or tends to injure citizens or the state, will not be enforceable. Where a piece of legislation prohibits the use of gross negligence as a shield in indemnity contracts, it will deter the formation of such a contract, for the benefit of public welfare.[366] Where gross negligence is unenforceable in offshore oil contracts, the party at fault will have to shoulder its liability, thus bearing the burden of mutually beneficial but

[358] Ibid, 713.
[359] Shand (n 341) 147.
[360] Ibid 152-53.
[361] Faure and Hartlief (n 93) 684.
[362] Note (n 333) 1459.
[363] CSX Transportation, Inc. v. Massachusetts Bay Transportation Authority (n 12).
[364] Kelleher (n 18).
[365] Winfield (n 305) 76.
[366] McMullen v. Hoffman 174 U.S 639, 669-70 [1899]. In this case, the court posited that "*to refuse to grant either party to an illegal contract judicial aid for the enforcement of his alleged right under it tends strongly towards reducing the number of such transactions to a minimum. The more parties understand that contracts of this nature place them outside the protection of the law … the less inclined will they be to enter into them*".

harmful activity. Allowing a party to benefit from his gross negligence exceeds the philosophical underpinning of the contract of indemnification between operator and contractor.

3.2.3 Freedom of contract and public policy

The maxim that contracts are to be observed remains the basis of the law of contract. Public policy generally supports the ultimate freedom of contract.[367] A contract properly formed require parties to comply with the obligations agreed upon. This is the fundamental objective that modern contract law is crafted to achieve.[368] The principle of "freedom of contract," is founded on the belief that respect for personal independence is an essential complement to both a free-market economy and a liberal state. Liberal theorist holds the view that the enforcement of private contracts freely entered into by parties pursuing their business affairs, preserves individual liberty, safeguard equality of opportunity, and maximises social wealth.[369]

D. Frisch notes that the concept never intends that courts could not intervene to protect parties from unjust transactions.[370] This is so as the doctrines of duress, undue influence and fraud have been applied in contracts to ensure fair treatment. Generally speaking, freedom of contract means that parties to a contract should be free to apply the rules that will be favourable to them. A typical example of this freedom is a clause that provides the law that will govern parties' transaction. It must be stated, however, that courts recognise this libertarian postulation and protects the choices of parties with restriction. J. Cilliers notes that courts should not be in a hurry to interfere and declare a contract incompatible with public policy, except where the element of public harm is evident.[371]

The question may be asked whether the concepts of voluntary, informed consent and freedom from state interference are truly, the symbols of the contemporary contract system. While contracts are enforceable under ideas of freedom of contract, the doctrine is not absolute. Contracts could be declared unenforceable on the grounds of public policy where, for a

[367] David Frisch, 'Contractual choice of law and the prudential foundations of appellate review' (2003) 56 Vanderbilt Law Review 58.
[368] Daniel Kie Hart, 'Contract Law now – Reality meets legal fiction' (2011) 41(1) University of Baltimore Law Review 2.
[369] Frisch (n 367) 59.
[370] Ibid at 60.
[371] Cilliers (n 311)140.

"promise or other term of an agreement [,] . . . the interest in its enforcement is clearly outweighed in the circumstances by a public policy against the enforcement of such terms." [372]

This study argues that a contractual practice that will negatively influence parties' behaviour or encourage bad oilfield practice that could result in harm to society ought to be declared unenforceable because of public policy influence parties' behaviour in a negative way or encourage bad oilfield practice that could result in harm to society, such commercial agreements ought to be declared unenforceable on grounds of public policy. This public policy objective has become the case with the use of mutual indemnity as a shield against liability for gross negligence, thus creating a culture of lack of responsibility as the Chief Counsel report noted on the Macondo spill. The interest of the few in enforcing the use of mutual indemnity as a protection against liability for gross negligence under notions of freedom of contract is outweighed by the interest of the very many who are affected by an oil spill, property damage or death of personnel arising from a party's gross negligence. Invalidating the extreme use of mutual indemnity contract is consistent with the precautionary principle in environmental law. Public policy focuses on the substance of contractual terms and the nature of the outcomes.

The freedom in freedom of contract is best understood by focusing on agreements that promote public policy as opposed to contracts that violated it. It relates to the freedom to contract freely and voluntarily, in consonance with acceptable norms and standards that align with public policy objective. To allow parties to a contract use mutual indemnity agreement as a shield against liability for gross negligence, is an extreme application of the freedom of contract. It is like using mutual indemnity agreement as immunity to promote arbitrariness, by allowing the extreme application of seriously wrongful conducts in the guise of freedom of contract. If allowed in this regard, freedom of contract will conflict with public safety, moral and interest, which public policy seek to protect?

The court has a duty to protect the public from contracts that violates public policy. The court took this position in ***Egerton v. Brownlow,*** wherein it recounted the view of Lord Pollock that if public welfare were to be taken away from his thinking process, he would be abandoning the functions of his office. He further noted*: "It may be that judges are no better able to discern what is for the public good than other experienced and enlightened members of the community, but that is no reason for their refusing to entertain the question and declining to decide upon*

[372] Myanna Dellinger, 'Trophy Hunting Contracts: Unenforceable for Reasons of Public Policy' (2016) 41(3) Columbia Journal of Environmental Law 395.

it. Is it, or is it not, a part of our common law, that in a new and unprecedented case, where the mere caprice of the testator is to be weighed against the public good, the public good should prevail? In my judgment, it is."[373]

In stressing the role of the court to apply public policy objectives in contracts, W. Gellhorn notes that judges represent the community conscience, and as such, they should declare contracts against the interest of the public, unenforceable.[374] The reason is because aiding their enforcement is to incentivise conducts which are against public welfare. Undesirable conducts could be discouraged, or anticipated results may be achieved by altering the practice or by conditioning the enjoyment of a privilege upon the submission of some other privilege etc. it is in the light of this that a rethinking of the contractual practice of risk allocation is proposed. In some instances, the contract may not be violating a legislation, however, if the contract will run against public policy, it should be invalidated. Reference could be made to laws in other jurisdiction where there is no law prohibiting the act in a particular country.[375] The essence of the reference to other law is founded on the universal application of public policy for the interest of society. The use of judicial opinions is not rare and is accepted as a suitable support in arriving at a related determination. Legislative opinions could also be applied in a similar circumstance in making laws that promote public interests.

3.3. Conclusion

A historical examination of gross negligence reveals that it emanated from bailment and made in-roads to contract and later torts. Although courts have linked its meaning with 'intention', it is a 'wrong' that is associated with 'conduct'. Conduct that that falls far below the standard of a reasonable man. The emphasis here is on "far below" as opposed to mere negligent conduct. Gross negligence is meant to apply as a sword, to deter and punish seriously wrongful conduct that could harm society. Mere negligence will not result in liability but gross negligence. In tort law, this distinction is irrelevant as the degree of negligence does not determine liability except in cases where certain public servants are excluded from liability, but liable if their conduct result from gross negligence.

[373] Egerton v Brownlow [1853] 4 HLC 1.
[374] Walter Gellhorn, 'Contracts and Public Policy' (1935) 35 Columbia Law Review 679.
[375] Ibid.

Public policy negates the application of gross negligence to the benefit of a party at fault. Although the concept of freedom of contract allows parties to contract on terms that are suitable to them, this is not at the expense of public policy or public interest. Allowing it could incentivise harmful oilfield practices that could occasion harm to society and the use of less care during drilling operations. Once gross negligence results in injury or damage, the public suffers, and they may not recover all losses as a result of statutory limitations. When the Macondo disaster occurred, it caused injury to businesses, fishermen, tourists and the natural environment. Not all losses were recovered. To conform to public policy, a party at fault ought to take responsibility for its conduct. Public policy does not promote harm to society, but places responsibility that incentivises the exercise of care.

Chapter 4 : The analytical tool of Distributive Justice - A basis for bearing burden

The burden of mutually beneficial but harmful activities should be distributed proportionally among the parties who benefit from it.[376]

4.0. Introduction

This chapter examines the concept of Distributive Justice as generally espoused by J. Rawls and other scholars, to explain the meaning of the concept and its application to society. It further looks at distributive justice as canvassed by G. Keating to determine how distributive justice applies in the tort law of accident, and how it could apply to offshore drilling contracts in the oil industry. An adaptation of Keating's distributive justice was applied, using three core elements - fairness, proportionality, and mutual benefit - to show the basis for which the burden of risky activities should be borne by any party that occasion damage. This chapter further evaluates the nexus between distributive justice and private law to determine the application of distributive justice in private contracts, especially between an operator and a contractor in the upstream offshore oil industry. The benefit and burden discussion set the stage for its application in the liability impasse between operators and contractors in offshore drilling contracts.

4.1 Distributive justice: An overview

Before considering the concept of "Distributive Justice" let us look at the term *"Justice*". This notion has different meanings in terms of its usage or application. Philosophical arguments about justice centres on two key issues: one is the conditions under which particular distributive arrangement may be described as just and unjust, and another is the nature of this phenomenon. The term "justice" can be looked at from different perspectives.

When viewed from the perspective of mutual advantage, justice is primarily a matter of the result of a fair bargain where two parties could be placed in a better position by engaging in an agreement. It is a matter of fashioning rules for the apportionment of the benefit and burden provided by co-operation. In this regard, justice relates to the distribution of benefits and burdens of the agreement. Justice can also be seen also as reciprocity, and this stems from a fair return or just price, capturing the idea of equal exchange. Finally, justice as impartiality

[376] Keating (n 75) 106.

relates to taking the point of view of other people; putting oneself in their shoes.[377] It is akin to negotiating a contract behind the veil of ignorance.

To Plato and Aristotle, justice is the essential virtue, the summary virtue, the virtue most vital for humans as social animals who live together in a community, city or state.[378] The term justice is elusive and defining it could be an invitation to an abstract kind of philosophical speculation. People argue about what is just and unjust in international relations; just and unjust rules or practices in society. This argument about justice is because it represents one of the several virtues of social institutions. Others see justice as the fundamental idea of fairness,[379] and that it varies as to its application to persons, particular action, or practices.

To J. Rawls, justice as fairness set limits as to how practices could define positions and apportion rights, duties and liabilities accordingly. To him, for a practice to be fair, it should apportion rights, duties and liabilities equally, and if inequality exists, it will be arbitrary except it is reasonably expected to be for the benefit of all concerned.[380] The inequalities are best understood not from the differences between positions and offices of persons but in the benefits and burden attached to them. In the hydrocarbon industry, while inequalities of benefits and burden exist, parties have rights, duties, and obligations that confront their involvement in drilling operations. This study looks at justice as the balance between benefit and burden among people with rights and responsibilities within a particular practice. Justice, law, and distribution is dependent on each other. The concept of justice is a criterion among others, to accomplish distribution in transactions.[381]

Distributive justice concerns itself with the fair apportionment of benefits and burden amongst members of a given community. Fair distribution takes note of the amount of what is to be distributed, the procedure of distribution, and the resulting pattern of allocation.[382] Its principles tell how some specific benefit or burden ought to be shared. Distributive justice is not only limited to economic issues, but it is also a normative principle that assists in the apportionment of benefits and burden of economic activities.[383] Suffice to say that the concern

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[377] Jonathan Wolf, 'Models of Distributive Justice' (*Novartis Foundation Symposium*, 2007) <http://www.ncbi.nlm.nih.gov/pubmed/17214316 > accessed 16 May 2015.
[378] John Rawls, 'Justice as Fairness' and A Theory of Justice, in Robert C Solomon and Mark C Murphy (eds), *What is Justice? : Classic and Contemporary Readings* (Oxford University Press 1990).
[379] Ibid 305.
[380] Ibid 306.
[381] Peter Cane, 'Distributive Justice and Tort Law' (2001) 2001(4) New Zealand Law Review 404.
[382] Maiese (n 75); Armstrong (n 75) 16.
[383] Julian Lamont and Christi Favor, 'Distributive Justice' (Stanford Encyclopaedia of Philosophy, 1996) <http://plato.stanford.edu/entries/justice-distributive/ > accessed 17 April 2015.

of this study is how the burden of risk could be allocated and managed by parties in the hydrocarbon industry to avoid a downside.

The concept of distributive justice is traceable to the discussions of Aristotle on justice in Book V of the Nicomachean Ethics wherein he posited that justice is concerned with "*distribution of honour or money or other things that have to be shared among members of a political community*"[384]. To J. Finnis, distributive justice focuses on the challenge of distributing opportunities, resources, advantages, responsibilities, and burdens among those who are members of a group or community.[385] While some discussions of philosophers about distributive justice centred on benefits and resources, Finnis' catalogue includes burden in his discussion about distributive justice.[386] Other scholars posit that distributive justice is concerned with sharing of benefits and burdens that are "*communal*" in some respect; or from a narrow perspective, the division by the state of benefits and burdens.[387]

The concept of distributive justice was advanced by J. Rawls in his work "A Theory of Justice" wherein he advocated two principles to wit:

1. *"Each person is to have equal right to the most extensive scheme of equal basic liberties compatible with a similar scheme of liberties;*
2. *Social and economic inequalities are to be arranged so that they are both reasonably expected to be to everyone's advantage and attached to positions and offices open to all".*[388]

From Rawls theory, a distributive system should first ensure equality, and where social and economic inequality exists, the distribution should be to everyone's advantage. Although Rawls focuses on the application of the distributive principle to the basic structure,[389] he stressed the need for the apportionment to be for the advantage of all despite any inequality in the assignment of rights, duties and obligation, i.e., in the distribution of the benefits and burdens. When applied in the context of the operator and contractor in risk allocation (burden in this case), Rawls principle can be seen to support the allocation of a burden that will be to

[384] Roger Crisp (ed) *Aristotle: Nicomachean Ethics* (Cambridge University Press 2000) 85.
[385] John Finnis, *Natural and Natural Rights* (2nd edn, Oxford University Press 2011) 166.
[386] Cane (n 337) 405.
[387] David Bostock, *Aristotle's Ethics* (Oxford University Press 2000) 58-60.
[388] Rawls, (n 22) 53; Erin Kelly (ed), J*ustice as Fairness: A Restatement, John Rawls* (Harvard University Press 2001) 42; Thomas M Scanlon, 'Rawls Theory of Justice' in Norman Daniel (ed), *Reading Rawls: Critical Studies on Rawls' A Theory of Justice* (Basil Blackwell 1975).
[389] The basic structure to Rawls is the basic infrastructure, opportunities, and amenities in society (rights, benefits), and the duty such as tax payment etc. imposed by state institutions.

the advantage of both parties, given that parties are sometimes causally connected to an offshore accident. A close examination of Rawls' postulation reveals that he is talking about general public policy in precisely the same way as stated in chapter three above. The goal of public policy is to promote the interest of the public and to facilitate practices that could prevent harm and be to the benefit of all. This goal can be achieved when contracts are designed behind the veil of ignorance with parties not knowing what position they might be on the other side of the veil. The essence of this hypothetical veil is to ensure that the contract is fair to all, and in the interest of everyone, notwithstanding their position.

One should note that inequality does not take away the rights, duties, and obligation of parties, only that they operate at different levels of economic advantage or strength. When faced with a burden, it means that each party bears a proportion of the burden (duty) it created, since it enjoys the benefit (right). Equal treatment will mean leaving parties to bear the outcome of their negligent conduct, not placing any party above the other in terms of an economic advantage when a downside arises. Unequal treatment, on the other hand, means apportioning the liability according to the benefit reaped from the activity that has produced the burden given the economic advantage of one party to another. This approach, according to Rawls, will be to the benefit of all.

G. Keating[390] advanced the principle of distributive justice in the tort law of accident. To him, tort law should be understood as an issue of distributive justice – an issue dealing with the fair allocation of benefits and burden of risky but valuable activities[391] – and on a secondary note, a matter of corrective justice.[392] Keating premised his concept of distributive justice on the argument that benefits and burdens of activities that are harmful but mutually beneficial should be designed so that those who benefit from the activity also bear its burdens.[393] Bearing the burden of harm created is also in tandem with corrective justice.

Keating notes that it will be unfair for an actor/party to impose the cost of its activity – physical harm, damage, – on others when the party reaps the benefit arising from such activity. He

[390] Keating (n 75) 192.
[391] Hydrocarbon exploration and production is a good example of a risky activity that poses great danger to man and the marine living resources and results in severe damage when a downside occur. It is valuable as it provides fuel to light the world and powers machine for man.
[392] To Keating, corrective justice is derived from the justice conception which see tort law of accidents as being in tandem with the ordinary notion of harm and reparation, agency and responsibility, rectification of losses for wrongful actions, etc.
[393] One of the burdens of hydrocarbon exploration and production is oil spill which negatively impacts man and marine living resources in the case of offshore drilling. This is mostly the result of negligent conduct of operators and contractors during hydrocarbon exploration.

advanced that the burden of the activity that parties benefit from should be shared in relation to benefit (gains, profit, etc.) reaped. That is to say that all involved must partake in the burden, i.e. high reward should receive high risk from the activity. One common thread that runs through the philosophical opinion of the above scholars is the distribution of burden in a system or an agreement.

This study adapts Keating's distributive justice as a basis for which a party should share in the burden, which results from his seriously wrongful conduct. Where a party takes benefit from drilling operations, it should also bear the burden, mainly when such party occasioned the burden. Distributive justice serves to justify the responsibility for an outcome, and this (outcome responsibility) imposes a duty to repair in appropriate situations.[394] It follows the logical pattern that where gross negligence is carved out as a trigger for liability, the responsible party or parties will have to bear it, contrary to the long-time practice where fault does not count. This matches with the underpinning of public policy which is about deterrence, liability, and the protection the society from harm.

From the perspective of distributive justice, – *does the present risk allocation practice obligate a party to the agreement to bear the burden of gross negligence resulting in damage during drilling operations*? *Does the practice promote good oilfield practice that could lead to the prevention of harm and discourage moral hazard? Is the practice of risk allocation mutually beneficial to the operator and contractor? Does it protect the interest of the public?*

In the Macondo case, BP and Transocean were found liable for several degrees of negligence.[395] But BP was held liable for gross negligence. Similarly, the report of the Commission for the Montara oil spill indicates that the operator and the drilling contractor were also complicit in the spill,[396] but only the operator was held liable for gross negligence. When a party has no obligation to prevent damage, moral hazard will set in, to the disadvantage of the other contracting party and society, if a downside occurs.

Hydrocarbon development is an economic activity that is mutually beneficial to the operator and the contractor. The contractor gets financial rewards for services rendered to the operator

[394] Honore' (n 192) 80.
[395] The Bureau of Ocean Energy Management, Regulation and Enforcement (BOEMRE), 'Report Regarding the Cause of the April 20, 2010 Macondo Well Blowout' (*National Oceanic and Atmospheric Administration*, 14 September 2011) <http://docs.lib.noaa.gov/noaa_documents/DWH_IR/reports/dwhfinal.pdf > accessed 20 April, 2015.
[396] Montara Commission of Inquiry, 'Report of the Montara Commission of Inquiry' (Commissioner David Borthwick AO PSM, June 2010) < http://www.iadc.org/wp-content/uploads/2016/02/201011-Montara-Report.pdf > accessed 20 June, 2015.

for drilling an offshore well, maintaining or servicing the well for the operator. And under a performance incentive contract, the drilling contractor gets more benefit if he drills safely and responsibly. The operator, in a Concession regime, receives its own reward in the form of crude oil from the well. Operator sells the crude and makes a profit or receives crude as payment for services rendered in a PSC regime to a host state, which it then sells to recover its cost and make profit therein. Regardless of the perspective, the drilling of the well is mutually beneficial to parties,[397] the benefit only varies given the risk and reward ratio.

4.2 Theoretical analysis of key elements in Distributive Justice

From Keating's concept of distributive justice, three key elements were adapted for use in this study. They are to wit: ***Mutual Benefit, Proportionality, and Fairness***. Keating's distributive justice is in tandem with the theory of enterprise liability. As a theory, enterprise liability is to the effect that any activity that produces harm should internalise the cost of the harm;[398] and that the cost should be distributed among parties involved in the activities.[399] The above elements are key to our analysis of risk allocation in contracts and standard forms found in Concession and PSC regimes.

4.2.1 Fairness

The principle of fairness is a fundamental element of distributive justice. From a public international law perspective, fairness has legitimacy and distributive justice requirement.[400] I. Scobbie notes that legitimacy is concerned with process – ensuring that the right mechanisms are in place to enable the making, interpreting, and application of the law. And that distributive justice is concerned with the practical worth of rules – the appropriate allocation of burden and benefit applicable to society through rules. However, legitimacy and distributive justice conflict as distributive justice examine moral fairness while legitimacy denotes fairness of the examination process.

To T. Franck, fairness is the pivotal edifice for the management of discursive tension.[401] He notes that the fairness discourse is the link-bridge under which order, and change are negotiated in society. To him, fairness is "… *a human, subjective, contingent quality which merely*

[397] It must be stated that the operator may meet a dry hole sometimes, but the contractor may still be paid.
[398] Well related activities usually produce harm (pollution) when negligence creeps in, and this is usually traceable to the operator and contractor in hydrocarbon operations.
[399] Gregory C Keating, 'The Idea of Fairness in the Law of Enterprise Liability' (1997) 95(5) Michigan Law Review 1269.
[400] Iain Scobbie, 'Tom Franck's Fairness' (2002) 13(4) European Journal of International Law 910.
[401] Tom M Franck, *Fairness in International Law and Institutions* (Oxford University Press 1995) 7.

captures in one word a process of discourse, reasoning, and negotiation leading, if successful, to an agreed formula located at a conceptual intersection between various plausible formulas for allocation."[402] He further asserts that fairness should satisfy participants' expectations of justifiable distribution of burden and benefits (costs).[403] He identifies the parameters of fairness – no trumping and maximum - and calls them the "*gatekeepers of fairness discourse*". On the maximum parameter, he posits that the viability of the fairness discourse is justifiable "… if inequality has advantages, not only for those who benefit from that inequality but to everyone else".[404] This notion is in tandem with the Rawlsian justice postulation already stated above. Rawls believed that the maximum parameter should be for the good of everyone and that inequality should be for the interest of all.

The gatekeeper postulation set out the broad contours of distributive justice, and the maximum principle, as can be seen, follows J. Rawls' postulation – an unequal distribution is only justified if it does not widen the already existing inequality.[405] The maximum principle does not bring about a predetermined outcome but enables a variety of acceptable outcomes, leaving the choice of negotiation to the participants involved.[406] Rawls believed that this could be achieved when laws are made or contracts executed behind a veil of ignorance. This is because parties behind a veil do not know which group they will belong to on the other side of the veil. To Rawls, fairness can be achieved when the outcome is unknown.

From a private law point of view, fairness, in the context of distributive justice, stresses that the benefit and burden of harmful activities are fairly distributed when those who receive the benefits of the risky activity also bear the burden arising from it. Keating advances the fairness conception of distributive justice with a root in the Kantian social contract tradition.[407] He asks what condition would persons that are concerned about fairly cooperating with one another, accept to govern beneficial activities which results in the risk of injury. This question is partly about justice/fairness because it is concerned with how the benefit and burden of risky activities are distributed, and partly about those affected by the risk because it brings to light and seeks

[402] Ibid 14.
[403] Ibid 7.
[404] Ibid 18-22.
[405] Ibid 16.
[406] Scobbie (n 400) 912.
[407] Keating on Enterprise Liability (n 399) 1266.

to protect their fundamental interest.[408] The answer to this question lies in the Rawlsian veil of ignorance.

Just as a potential injurer has a fundamental interest in liberty, so does a potentially responsible party have a fundamental interest in security. A fundamental interest in liberty exists to allow the imposition of risk (such as the drilling of offshore hydrocarbons) upon others - the responsible party - to pursue aspirations that support human existence.[409] A fundamental interest in security is also essential to check the freedom to pursue these aspirations, and this comes in the form of a burden or liability apportionment attached to the freedom to operate or carry out the risky activity. This view agrees with the idea above, and it matches with the fundamental problem identified in this study. The freedom to contract or pursue these aspirations is not absolute; it is balanced by public policy.

Fairness here entails a reconciliation of these competing interests in security and liberty under terms and conditions that are favourable and fair for parties to pursue their aspirations.[410] Fairness will take into cognisance the benefits of the activity in distributing the burden to be borne by parties. Fairness should be about the just distribution of the burdens from the activity that profits both parties. Fairness here is determined by the benefit which results in the burden. The benefit should be aligned with the burden (this forms the parameter for distribution), while those who profit from the activity bears the cost of the injury (liability).[411] It is also about a party taking responsibility for its seriously awful conduct in some way, shape or form in line with the benefit derived from the activity.

The courts applied the concept of fairness in ***Wright v. Newman***[412] wherein the court applied the loss spreading and fairness concept in arriving at its decision. The reasoning of the court is founded on the fact that those who profit from a venture should also partake in the cost of the harm that results. In consonance with Keating's view, it can be safely posited in this study that in contractual risk allocation, the nature and extent of the burden of risk would be based on the

[408] In the instant case, the interest to be protected would be that of man and his marine environment that is being damaged; and that of the operator who is strictly liable by law for pollution damage occasioned by hydrocarbon exploration.
[409] The production of fossil fuel to light up the world and power machines for man's use.
[410] Keating on Distributive Justice (n 75) 197.
[411] Keating on Enterprise Liability (n 399) 1269.
[412] Wright v. Newman 735 F.2d 1073 (8th Cir. 1984). The court had held that the cost of injury from a defective product should be distributed to the seller as the seller also profit from the sale. See also Ira S. Bushey & Sons, Inc. v. United States, 398 F.2d 167, 171 (2d Cir. 1968).

perceived benefit parties would gain from the drilling of hydrocarbons.[413] That is to say that where gross negligence results from the conduct of both parties, their burden should accord with their benefit, but where the conduct is sole, the party at fault will be liable to pay damages.

From both public and private law perspectives, fairness lies at the centre of both systems of law and forms the basis for managing discursive tension. Presumptively, fairness in the context of this study implies that those who impose risks on others should partake in the cost that arises from the risk they imposed. Where a party, out of gross negligence, causes harm to society or loss to another party, fairness requires that the party also share in the ensuing liability. It will be distributive injustice should a grossly negligent party not participate in the burden it contributed to imposing. This is because the risk they impose stems from an activity they benefit. Hence, the imposing party should also partake in the cost of the negligent imposition. When one applies the Rawlsian point of view in risk allocation, fairness entails designing a contract, behind the veil of ignorance, which will allocate responsibility for gross negligence for the benefit of everyone irrespective of the inequalities that exist; a contract that will promote good oilfield practice to forestall harm to others.

4.2.2 Proportionality

The principle of fairness is closely related to the proportionality principle as an element of distributive justice. Proportionality, as used in this study, is not as advanced by R. Alexy in his evaluation of constitutional rights.[414] Proportionality in this study represents a compensatory balance wherein a burden reflects the benefit a person obtained from an activity that occasioned damage. Distribution results in proportion, and proportion results in more to some person(s) and less to others.[415]

The term "proportionality" in this study is used in a loose sense. The application of proportionality in a loose sense enables the comparison between rewards and contributions[416]

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[413] It must be noted here that reference is being made to well related pollution which is usually the result of negligent acts of both parties as opposed to surface pollution such as diesel, lubricants, ballast, solvents, garbage etc. which the operator may have little or no contribution at all. The Macondo and Montara disasters are classic examples of contributory negligence by operator and contractor.

[414] Robert Alexy, 'Constitutional Rights and Proportionality' (2014) 22 Revus – Journal for Constitutional Theory and Philosophy of Law 52; Robert Alexy, *A Theory of Constitutional Rights* (Oxford University Press 2002); Grégoire C N Webber, 'Proportionality, Balancing, and the Cult of Constitutional Rights Scholarship' (2010) 23(1) Canadian Journal of Law and Jurisprudence 179.

[415] John G Culhane, 'Tort, Compensation, and Two Kinds of Justice' (2003) 55 Rutgers Law Review 1064.

[416] This is akin to benefit and burden as rewards represents benefits while contributions represents duties, obligations performed, or burden borne. As a legal theory, it represents a balance between rights and duties, benefits and burden received. Rainhard Bengez and others, 'Proportionality and Quantitative Justice: An Introduction to Special Issue' (2011) 10 Law, Probability and Risk 164.

of one person or group with another person or group,[417] and this is an issue of distributive justice. It has been noted that proportional liability, when applied in the context of causal uncertainty, conforms to civil liability objectives and promotes compensation and deterrence.[418] While the economic analysis of law[419] favours the *proportional liability rule* – liability based on the amount of damage an injurer contributed to a loss/risk - which application may be relevant to determine causal uncertainty in tort law,[420] proportionality in this study concerns itself with the risk and reward derived. This forms a basis to apply the liability cap between the parties based on their risk and reward in the activity. The proportional burden rule approach to liability distribution in tort may occasion the challenge of environmental responsibility insurance.[421]

Justice as proportionality was first advanced as an idea in the Nicomachean Ethics of Aristotle where a proportionate measure was used to distributive justice in Aristotle's schema.[422] Justice as the right ratio is the basis of proportionality inquiry. It means that the nexus between a distributive principle and what was apportioned is proportionality. In the context of distributive justice, proportionality emphasises that the benefit a person receives should equal the burden borne. A typical example is the UK tax system where people who earn higher pay more tax than people whose incomes are low. Proportionality, a general principle of law, is also used as a fairness and justice criterion in the process of statutory interpretation.

G. Keating notes that a liability rule should distribute the burdens of risky activities in a manner proportionate with the benefit received from the activity.[423] Where benefits are equal in distribution, the burden should also be equal in distribution. However, where benefits are unequal in distribution, the burden should also be unequal in distribution. To him, a party who

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[417] Jerald Greenberg, and Ronald L Cohen, (eds.), *Equity and Justice in Social Behaviour* (Academic Press Inc., 1982) xiii.
[418] Giovani Comande and Luca Nocco, 'Proportional Liability in Uncertain Settings: Is it Precautionary?' in Israel Gilead and others (eds) *Proportional Liability: Analytical and Comparative Perspectives* (Walter de Gruyter GmbH 2013) 205.
[419] Shavel (n 163) 174.
[420] Michael Faure, 'Regulatory Strategies in Environmental Liability' in Fabrizio Cafaggi and Horatia M Watt (eds), The Regulatory Function of European Private Law (Edward Elgar Publishing Ltd 2009) 153.
[421] Ibid 154.
[422] Eric Engle, 'The History of the General Principle of Proportionality: A Overview (2012) 10(1) The Dartmouth Law Journal 3. Proportionality has however evolved to gain acceptance in criminal law and constitutional rights. This is so as reference is been made to proportionality in self-defence in criminal law and in human rights. Alec S Sweet and Jud Mathews, 'Proportionality, Balancing and Global Constitutionalism' (2008) 47 Columbia Journal of Transnational Law 96; M T Cicero, Treatise on the Commonwealth in Francis Barham, Esq., The Political Works of Marcus Tudlius Cicero: Comprising his Treatise on the Commonwealth; and his Treatise on the Laws, translated from the original, with Dissertations and Notes in Two Volumes, (Vol. 1, Edmund Spettigue. 1841-42).
[423] Keating (n 75) 209.

receives high reward should also receive high risk in return;[424] and this, this study argues, is in tandem with J. Rawls second principle of justice: if inequality exists, it should be in the interest of all.

Presumptively, a proportionate distribution supports a practice where burden reflects benefit obtained from the activity. Proportionality does not mean the absence of liability; it implies that responsibility should reflect benefit. The distribution of the resultant liability arising from injury, property damage or pollution damage should be proportionate to the benefit. Proportionality is the entire justification for the contractual cap on liability for gross negligence. Again, it reflects the elements of risks and reward in the oil industry.

4.2.3 Mutual Benefit

Case law has over the years established that a party who benefits from an activity or arrangement would be bound by the corresponding burden, although he was not a party to the original agreement.[425] It follows that an obligation may follow an activity that grants the benefit of which a party may take advantage, but not a condition for the enjoyment of the benefit; the party would have to share in the corresponding burden arising from it.[426] Where parties to a contract benefit from the contract, they are obligated to share in the burden arising from it, albeit, in a manner that reflects their benefits.

Mutual benefit and burden is another vital element in G. Keating's concept of distributive justice. Mutual benefit in distributive justice is akin to the equitable mutual benefit and burden principle in law. The equitable principle emphasises that obligation follow the enjoyment of a right. Courts have also applied this principle in certain areas of law[427] and developed conditions that should be satisfied for its application.[428] Mutual benefit and burden are sometimes expressed in the Latin maxim ***qui sentit commodum sentire debet et onus***[429] – that a man cannot approbate and reprobate or accept and reject the same transaction. In this regard, a drilling contractor may not have executed any contract with the licensing authority but would share in the burden arising from its gross negligence. Mutual benefit in distributive justice

[424] Ibid.
[425] Goodman v. Ellwood [2013] EWCA Civ 1103, Halsall v Brizell [1957] Ch 169.
[426] Christine J Davies, 'The Principle of Benefit and Burden' (1998) 57(3) Cambridge Law Journal 522.
[427] Ibid 522-523. The principle of benefit and burden finds it roots in the execution of deeds. See the case of Halsall v. Brizell supra note 283.
[428] The conditions are to wit: That the benefit and burden must be conferred in, or by the same transaction; the benefit must be conditional on, or reciprocal to, the burden; the party subject to the burden must have had the opportunity to reject the burden. See Halsall v. Brizell.(n 390).
[429] Broom's Legal Maxims, (10th edn) 485; Pickersgill v. Rodger [1876] 5 Ch. D 163, 173.

advances the need for the burden to be distributed amongst persons who benefit from a given activity. In other words, mutual benefit obligates a contribution to the enjoyment of a right (benefit).

After reviewing approaches to burden sharing, E. Page concluded among other things that a principled reconciliation of parties' "*contribution to the problem*" and "*beneficiary pays*" is a key approach to burden distribution that will result in a satisfactory mix of practical application and theoretical coherence.[430] He argues that those who contributed to a harmful activity or consequence and benefited in the process should also share in the burden as beneficiaries of the harmful activity. This follows the requirement of public policy that a party at fault should bear responsibility for his wrong in some way or form. This reasoning may not be unconnected with the idea of environmental responsibility which core aspect involves the guidance and accountability for harm done to the environment.[431]

To E. Page, it will be unfair if a party contribute to a harm/consequence and benefits from same, and not share in the burden – if you enjoy a benefit, you should share in the burden. The "contribution to the problem" principle advocates that those who contributed to a problem and benefited from the contributing activity should share in the burden of contributing to the cost of managing the problem.[432] In this regard, causal responsibility and connection become a foundation for burden distribution where the harm is connected to the operator and drilling contractor during offshore operations.

The enjoyment of a benefit goes with the acceptance of the resulting burden from the benefiting activity, and this is applicable where the benefit and the burden are relevant to each other.[433] This principle was developed by the court in ***Halsall v Brizell*** and emphasised in ***Goodman v. Ellwood***[434] wherein the court held that the enjoyment of a right depends on the compliance with an obligation. That, although a positive covenant by the original owner of the property does not bind successors-in-title, the obligation could be enforced against a successor-in-title

[430] Edward A Page, 'Distributing the Burdens of Climate Change' (2008) 17(4) Environmental Politics 556.
[431] Martin Reynold, 'Introduction to Environmental Responsibility' in Martin Reynold and others (eds), *The Environmental Responsibility Reader* (Zed Books Ltd 2009) 3.
[432] Ibid 557.
[433] Chris Dolan and Cara Beveridge, 'The Benefit and Burden Principle (11 February 2014), <http://www.shoosmiths.co.uk/client-resources/legal-updates/The-benefit-and-burden-principle-6934.aspx> accessed 3 August 2014.
[434] Goodman & Ors. V. Ellwood [2013] EWCA Civ 110.

where he enjoys the benefit of the associated rights. The successor-in-title to the original owner of the land was obligated to contribute towards the maintenance of a road if he uses the same.[435]

It must be stated that the above discussion on mutual benefit does not suggest that the operator and the driller are equal. The benefit of the operator far outweighs that of the driller as the operator enjoys long-term financial upside upon commercial success. Both distributive justice and public policy tend to liability for wrongful conduct. This explains their convergence in the protection of the interest of everyone.

4.2.4 A convergence of the parameters of Justice Theory and Public Policy

Justice, as canvassed by J. Rawls, emphasises the need for practices to be fair and beneficial to all concerned. He notes that the enjoyment of a right should not cause harm to another, but rather improve the life of everyone, and if inequality exists, it must be to the benefit of all.[436] Rawls looks at the bigger picture where the interest of everyone is taken into account when issues are being discussed or practices adopted. The interest of everyone represents all those that may benefit or be affected by a practice or a rule in a given society. To Rawls, the focus is on a just outcome that considers the interest of all.

Relatedly, public opinion, as already discussed, seek to protect the interest of the public or promote practices that could prevent harm to the public. It achieves this by providing the basis for which certain practices, contracts etc. should be declared unenforceable as their validation or enforcement will not be in the interest of all. The point of convergence between the Justice Theory and Public Policy lies in the fact that they both protect the interest of the public and ensure that whatever policy, practice, or agreement that is to be implemented, should be to the benefit of all irrespective of the inequality that may exist. Everyone should be better-off from the contract and not worse-off. That is, the implication of the law, practice or agreement, should take into account the interest of everyone that will benefit from it or be impacted by it.

In this regard, this study argues that to allow the use of mutual indemnity as a tool to prevent liability for gross negligence, will be akin to promoting an unfair practice against the society who will suffer harm in the event of an accident. The practice promotes bad oilfield practices which could harm the society and have a party liable for grossly negligent conducts occasioned by another person. To allow the current practice of risk allocation is to make some people happy while others are worse-off or to violate public interest for personal benefit. It will not be

[435] Davis (n 426) 523.
[436] Rawls (n 22).

in tandem with the Rawlsian postulation or public policy objective. Discouraging possible injurious conducts and making people take responsibility for their severely wrongful behaviour will promote public interest and be for the benefit of all. It will make parties to a contract to consider the interest of the public and to conduct their affairs in a manner that will not harm others.

One may wonder how distributive justice fits into a contract giving that parties freely and voluntarily accept the terms of their contract. It becomes pertinent to evaluate the nexus between distributive justice and private exchange (contract) which parties use to facilitate business convenience.

4.3 Distributive Justice and Private Law

4.3.1 Contract and Tort as vehicles of distribution

Different scholars[437] have expressed differing varying views regarding the link-bridge between contract and distributive justice. For instance, A. Epstein[438] notes that the role of a contract is to ensure procedural fairness (i.e. the absence of fraud, duress, undue influence) and not to make contracts distributionally fair.[439] He based his argument on the utilitarian defence – so long as the agreement covers parties, its enforcement will be for society's good – and on libertarian grounds – freedom to operate within the confines of the law. Public policy considerations may impact the strength of Epstein's argument. Public policy would encourage contracts that protects third parties and not one that harms it for compensation to be paid. Public policy would also like to discourage or deter severely awful conducts that cause harm or require a party to indemnify against the gross negligence of another.

Some scholars, such as Kronman, postulate that the legitimate function of a contract, among others, is to set out the rights (benefits) and duties (burdens) of parties as created by the agreement and that contract law should be applied as a device for distributive justice. The framers of contract rules - legislatures and courts - should do so with a mindset of fair distribution among members.[440] Fair distribution takes into cognisance the nature of the risk

[437] Aditi Bagchi and others affirms the essence of fair bargain and the nexus between distributive justice and contract while the likes of Richard A. Epstein believe that contracts should not aim to be distributionally fair but procedurally fair.
[438] Epstein, R. A., 'Unconscionability: A Critical Reappraisal' (1975) 18(2) Journal of Law and Economics 293.
[439] H G Beale and others (eds) *Contracts: Cases and Materials* (5th edn, Oxford University Press 2008) 813.
[440] Anthony T Kronman, 'Contract Law and Distributive Justice' (1980) 89(3) Yale Law Journal 472.

exposure. To him, distributive considerations should influence contract rules as the situation dictates, and distributive concerns should not be excluded from a private exchange.[441] While contract defines the rights (benefits) and duties (burdens) of parties in a transaction, distributive justice ensures the fair allocation of those rights and duties (benefits and burdens) arising from the exchange.

In a related development, a conventional view of J. Rawls' philosophy is that contract/private law lies outside the realm of distributive justice principles.[442] This is so as the autonomy theory sees a contract as a separate body of law which is founded on a promise in the absence of procedural defects.[443] To the autonomy theorists, the criteria of fairness or justice upon which contracts are assessed are part of the contractual terms given that the contract embodies the will of the parties. However, Posner's economic efficiency concept and Kronman's[444] distributive justice concept perceives contract law as serving a specific social value. It is arguably so as justice is considered the foremost virtue of social institutions, just as truth is of thought systems.[445] Some scholars posit that contractual rules are among the rules that determine resource allocation; hence, on a Rawlsian account, contract law falls within the confines of distributive justice.[446]

These scholars note that fairness or justice in a contract should be evaluated outside the will of the consenting parties by looking at standards such as distributive justice, utility, economic efficiency, as these principles impose duty even when the duty does not arise from the will of the contracting parties.[447] Again, philosophers and private law theorists argue that private law is partly a system of rights (benefits) and duties (burdens) and as such, involves a means of distributing and maintaining the distribution of rights and duties.[448] They further note that the application of the doctrines of private law by the courts in some cases have distributive effects within and beyond the legal world, making private law a matter of distributive justice.[449] Again, some authors contend that private law doctrines manifest concerns for loss distribution or

[441] Ibid 510.
[442] Kevin A Kordana and David H Blankfein-Tabachnick, 'Rawls and Contract Law' (2005) 73(3) George Washington Law Review 598.
[443] Charles Fried, *Contract as Promise: A Theory of Contractual Obligation* (Harvard University Press 1981) 17. Some recent philosophical thinking about contract has been within the promissory context.
[444] Richard A Posner, Catastrophe, Risk and Responses (Oxford University Press 2004); Kronman (n 440) 510.
[445] Rawls, Justice as Fairness (n 378) 3.
[446] Kordana and Tabachnick (n 442) 600.
[447] Ibid 599.
[448] Lucy William, *Philosophy of Private Law* (Oxford University Press 2006) 328.
[449] Ibid.

fairness, with a focus on particular cases such as legal liability[450] and so on, a safe inference that private law embodies some conception of distributive justice.

In private law, such as contract and torts, the creation of a pattern of distribution by the courts is a burden from the defendant's viewpoint and a benefit and resource from the claimant's perspective.[451] When courts make rules regarding the circumstances under which the liability to repair harm in tort arise, the court contributes to the creation of a form of distribution of benefit and burden within society.[452] P. Cane holds the view that tort law has distributive outcomes which must be justified if tort law is to be adjudged a welcome legal and social institution.[453] This is so as distributive tasks involve making rules that define the bounds and grounds of liability in tort,[454] given the decision of courts as to who is liable in tort or contract are unavoidably issues of distributive justice. The nexus between private law and distributive justice is substantial, given the allocative consequences.

This study notes that private law does not lie outside the bounds of distributive justice as contract law must be viewed as being subject to the justice conception. Private law encourages distribution because it allocates and maintains a system of rights and duties. [455]It has been argued in this study that efficiency or distributive considerations will evaluate the expected outcome of an agreement when a downside arise such as in the hydrocarbon industry, to fashion ways of ensuring a balance between the benefit and burden of the parties to the contract. It can also be distilled from the arguments that a distinct area that is ripe for distribution of losses which proponents of distributive theories concentrate on is the area of legal liability.

It is therefore not out of place to adopt the principle of distributive justice in drilling contracts to reflect a pattern of distribution that allocates the benefits and burdens of a particular activity amongst those who derive benefit from it. Practices and concepts of legal responsibility are impossible to explain without reference to matters of distribution. In the hydrocarbon industry, the catastrophic nature of harm and the resulting liability had prompted a rethink of the contractual terms for liability.[456] This is purely an issue of liability distribution among parties.

[450] Ibid 333; Cane, Distributive justice and tort law (n 381) 401.
[451] Ibid 404.
[452] Ibid.
[453] Ibid 404-405.
[454] William (n 448) 339.
[455] Cane, Responsibility in law and morality (n 190) 190.
[456] Moomjian Jr, Drilling contract historical development (n 194).

P. Cane[457]suggests further that even agent-focused theories of responsibility are not distributionally neutral as principles that limit the obligation to reckless conduct (gross negligence or willful misconduct) also distribute duty, and that a principle of responsibility for an intentional act is itself a condition for responsibility distribution. In his opinion, it will be radically incomplete for a responsibility theory to fail to address distributional implications regarding protected interests and proscribed conduct.[458]

The concern for fairness/distributive justice in law and contract is an effort to induce and reward proper behaviour. Equity in the law of contract could invite parties to apply an array of considerations to ensure distributive justice. It has been argued that the redistribution of the burden to a party in a contract may be arbitrary when the core injustice is systemic and that correcting distribution through a contract may be futile.[459] This view is rebutted by the fact that background distribution forms the content and plank of private rights and obligations, even within the framework of an agreement.[460] It is further argued that the recognition of distributive-sensitive constraints in the liability circumstance of contract law is not in any way arbitrary. Consent does not bar allocation of economic losses from a contract, for ends that are distributive or the interpretation of vague agreements to be in tandem with distributive preferences.

The making of indemnity agreements in the oil and gas industry is founded on the grounds of perceived business convenience and not law, as stated in this study. At common law, liability lies where it falls, as a party bears the outcome of its negligent conduct (fault liability).[461] This perceived business convenience is reduced into a binding contract by parties who consent to the terms and conditions of hypothetical risk situations, without knowing the expected result of a particular negligent act. Also, allocating risk behind the Rawlsian veil of ignorance could ensure a distributive fairness as canvassed by Rawls.

Distributive justice originates from equity and morality, which may also be reduced into a binding contract when parties agree on terms and conditions. It must also be noted that moral

[457] Cane (n 190) 190.
[458] Ibid.
[459]The exclusion of distributive justice from contract by some legal philosophers and economist is on the morality of promising; that distributive justice has no effect on the substance of contract law.
[460] Aditi Bagchi, 'Distributive Justice and Contract' in Gregory Klass and others (eds), *Philosophical Foundations of Contract Law* (Oxford University Press 2014) 195.
[461] Where liability arises from the negligence of more than one person, the cost of liability is spread amongst the parties according to their level of negligence. But distributive justice focuses on the benefit reaped from the venture as opposed to actual contribution to liability.

responsibility may survive consent even where risk-creating conduct is rendered blameless by consent. There is a limit to making otherwise unacceptable conduct permissible. Consent may not prevent responsibility for outcomes which meet conditions of accountability,[462] especially as an economic injury in shared contractual responsibility may justify sharing losses.[463]

One fundamental aspect of distributive justice that have seen in this study is the issue of responsibility. Both in contract and tort, responsibility is vital in private exchanges. The responsibility practice of distributive justice supports causal attribution and as a matter of justice, ensures that the wrongdoer participates in his wrongful act rather than imposes it on others.[464] Therefore, in the hydrocarbon industry, distributive justice would not allow a party to indemnify against the wrong of another party who is causally or solely connected to the wrongful act. Distributive justice would rather facilitate the distribution of the outcome liability amongst parties' regard being had to benefit received, and this is the allocative function of distributive justice.[465]

While the notion of distributive justice has become the focus of extensive scholarship, theories of responsibility have also become part of the debate.[466] In criminal jurisprudence, it is stated that a man intends the natural and probable consequences of his action, primarily where his conduct has occasioned harm to another.[467] It follows then that he should be responsible for the outcome of his actions as it is part of the division between society and the individual. This is so as choices are part of a distributive structure that enables parties to pursue their various conceptions of good. The key focus here is that distributive justice deals with the allocation of benefits and burden which private law also deals with – rights and obligations.

4.4 Conclusion

A look at the normative practice of risk allocation reveals the challenges inherent in it. While public policy emphasises the need to prevent the enforcement of agreements that seek to allow a party benefit from its wrong, distributive justice presents the basis for which the party at fault

[462] Bagchi, Distributive justice and contract (n 460) 203.
[463] Ibid .204.
[464] John Gardner, 'What is Tort Law for? Part 2: The Place of Distributive Justice' in John Oberdiek (ed) *Philosophical Foundations of the Law of Torts* (Oxford University Press 2014) 347; Jeff McMahan, 'Self-Defence and the Problem of the Innocent Attacker' (1994) 104(2) Ethics 259.
[465] Hanoch Scheinman, 'Tort Law and Distributive Justice in John Oberdiek (ed) *Philosophical Foundations of the Law of Torts* (Oxford University Press 2014) 364.
[466] Carl Knight and Zofia Stemplowska, 'Responsibility and Distributive Justice: An Introduction' in Carl Knight and Zofia Stemplowska (eds), *Responsibility and Distributive Justice* (Oxford University Press 2011) 1.
[467] R. *v.* Seymour, [1996] 2 S.C.R. 252; Michael G. Hayman "The Natural and Probable Consequences Doctrine: A Case Study in failed Law Reform" (2010) 15(2) Berkeley Journal of Criminal Law 388.

should share in its wrongdoing. However, this should reflect the proportion of the benefit reaped from the activity. This is the proportionality element in distributive justice, and it is associated with the risk and reward system between the operator and the contractor.

The various philosophical postulations by scholars as advanced present the need for an equitable balance in the allocation of rights (benefits) and duties (burden). This follows the reasoning that fairness should satisfy participants' expectations of justifiable distribution of benefit and burden. Distributive justice ought to be a directional tool for offshore risk allocation. Distributive justice applies to private law, as it concerns itself with rights (benefits) and duties (burden) just as contract deals with rights and obligations. Contract benefits the parties to it, and distributive justice influences contract rules by ensuring fair apportionment of rights and duties, especially behind a veil of ignorance.

The proportionality element in this study adapted distributive justice enables the application of liability cap for grossly negligent conducts. This element promotes public policy as it is geared towards putting a check on behaviours that could cause harm to society. The next chapter examines the environment under which drilling activities take place and some pollution vignettes that has led to risk aversion in the oil industry.

Chapter 5 : Offshore drilling environments and accidents in selected jurisdictions

"…the Arctic Ocean is characterized by a demanding and challenging physical environment. Sea ice is present most of the year, and the sun does not rise for two months in winter. Extended periods of heavy fog, freezing temperatures and weeklong storms approaching hurricane strength are not uncommon. These harsh and icy conditions have … been a barrier to industrial activity".[468]

5.0 Introduction

This chapter aims to examine different offshore drilling environments and to evaluate offshore accidents in certain jurisdictions to understand the challenges (response, containment, remediation, and clean-up) that may arise during drilling operations. The essence of the evaluation is to emphasise the need for drilling contracts that promote good oilfield conducts that could assist in the prevention of harm to avoid damage or loss, and not just the allocation of risk for business benefit. The examination will also provide useful insights into the need for a rethink in the risk allocation between key participants in the oil industry.

5.1 The offshore drilling environment and accidents from major drilling sites.

5.1.1 Drilling in Shallow Waters, Deepwater areas, and the Arctic.

The increase in global energy consumption driven by the growth of emerging markets has remained unabated despite the global economic crisis. This surge in energy consumption drives hydrocarbon exploration and production into new technological and geographically challenging frontiers to meet the demand for energy.[469] These new frontiers pose new risks and challenges for drilling operations, even as discoveries indicate the abundance of hydrocarbon in these extreme and vulnerable climes.[470]

5.1.1.1 Shallow water drilling

Shallow water drilling involves the drilling for hydrocarbon in less than 500 feet (150 metres) of offshore water.[471] In shallow water drilling, the rig legs touch the floor of the sea, and the

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[468] Nuka Research & Planning Group, LLC, 'Oil Spill Prevention and Response in the U.S. Arctic Ocean: Unexamined Risks, Unacceptable Consequences' *(PEW,* November 2010*),* <http://www.arctic-report.net/wp-content/uploads/2012/02/PEW-Oil-Spill-Prevention-and-Response-in-the-US-Arctic-Ocean.pdf> accessed 20 June 2015.

[469] David Sharp and Andrew Rees, 'Drilling in Extreme Environments: Challenges and Implications for Energy Insurance Industry' *(Lloyd's*, 2011) < https://www.lloyds.com/news-and-risk-insight/riskreports/library/technology/drilling-in-extreme-environments> accessed 2 June 2014.

[470]Jacob D Unger, 'Regulating the Arctic Gold Rush: Recommended Regulatory Reforms to Protect Alaska's Arctic Environment from Offshore Oil Drilling Pollution' (2014) 31(2) Alaska Law Review 264.

[471] Institute for Energy Research., 'Offshore Oil Drilling in Shallow Water: Good Safety Record, Less Risky' (*IER*, 21 October 2010) < http://instituteforenergyresearch.org/analysis/offshore-oil-drilling-in-shallow-water-good-safety-record-less-risky/ > accessed 19 June, 2015.

blowout preventers are usually above the sea surface for ease of inspection, maintenance, and repair in the event of a fault, and remote or manual control in the event of an emergency.[472]These wells are drilled in mature reserves and known areas. The Institute for Energy Research notes that shallow water drilling is less complicated and often results in good safety record. Years of drilling in shallow waters leaves oil and gas companies with enormous experience and geological guide especially as the water pressure, threshold and temperature enable divers to access the wellhead.

Records held at the Bureau of Ocean Energy Management in the United States reveal that less than twenty barrels of oil was spilt in the last 15 years from shallow water drilling in the United States.[473] According to the Bureau, shallow water drilling accounts for less environmental harm in the North American waters between 1990 and 1999. Offshore hydrocarbon exploration and production started from shallow water before energy demands, and emerging market growth propelled the drive to explore new frontiers such as the Deepwater and the Arctic.

Drilling contracts, although reviewed once in a while by the industry, tend to reflect and capture risks from drilling in shallow waters. Contracts were entered into with these realities in shallow water drilling, hence the practice that the operator will bear liability for well pollution while contractors bear liability for surface pollution. The realities of Deepwater drilling (as in Macondo) and the unknown effect in the Arctic has driven players to rethink their pollution contracts as the effects on man and environment are not the same in shallow water drilling. However, it must be noted that shallow water is not without blowouts when accidents occur. They are quick to release spilt oil to coastlines because of the shallow nature of the water, thus impacting the coastal environment and communities. However, deepwater drilling presents a higher challenge.

5.1.1.2 Deepwater drilling

Deepwater drilling is intricate and dynamic as it involves the boring for hydrocarbon in depths of 1,000 feet or more offshore.[474] The geological guide for companies in shallow waters is not

[472] Ibid.
[473] Offshore Energy Today, 'USA: Post Oil Spill delay Issuing New Federal Drilling Permits' (19 August 2010) < https://www.offshoreenergytoday.com/usa-post-oil-spill-delay-issuing-new-federal-drilling-permits/ > accessed 19 June, 2015); National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling, 'A Brief History of Offshore Oil Drilling 2010' (Staff Working Paper No.1).
[474] Ibid 7. The Commission revealed that deep water drilling started in the 1980s in the USA.

the same for deep waters as drilling activities have not been carried out for a long time like in the shallow water. Nieuwenhuise Don Van, the director of professional geosciences programme at the Department of Earth and Atmospheric Sciences, the Houston University,[475] notes that drilling in frontier areas such as the deep water is similar drilling in the dark. Deepwater drilling operations presents formidable technological challenges, including tricky access and water weight that confronts divers when accessing subsea wells and equipment during an emergency on the floor of the sea. To Nieuwenhuise, the combination off water depth, pressure and temperature are unique challenges that confront deepwater drilling. Drilling challenge exist because the deeper the well, the deeper the downhole temperature and pressure.

A comparison of the configuration of deep water and shallow water drilling is shown in the chart below.

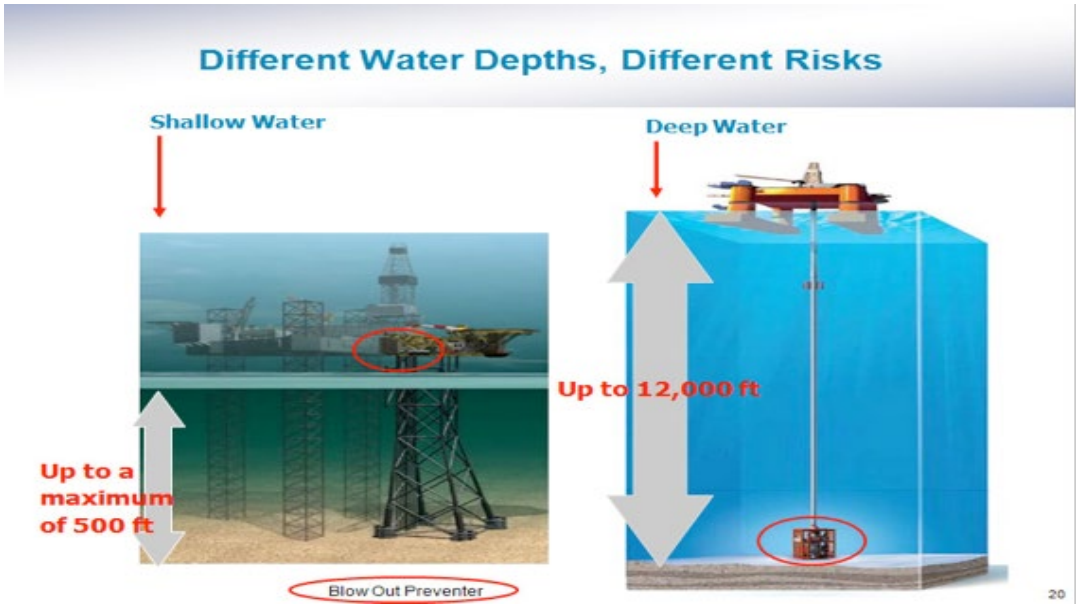

Figure 1: Comparing Shallow and Deepwater drilling

Source: Institute for Energy Research, 2010.[476]

Deepwater areas are described as "*an extreme environment*". The heightened risk of drilling in an extreme environment is evident in the accident, the first of its kind. The complexities involved in drilling the Macondo well and the challenge in controlling the well, and handling

[475] Jennifer A Dlouhu and Emily Pickrell, 'Accidents Show Depth of Dangers in Shallow Waters' (fuel fix, 4 August 2013) < http://fuelfix.com/blog/2013/08/04/accidents-show-depth-of-danger-in-shallow-waters/#14340101=0> accessed 20 June 2015.
[476] Institute for Energy Research (n 471).

the resulting pollution and marine environmental damage, highlights the problem of risk management in extreme environments.[477]

Deepwater drilling is sometimes carried out in the outer limit of the Continental Shelf (CS). Drilling above 1,000 feet is considered as "deep" and above 5,000 feet is regarded as "ultra-deep". Much of the deepwater drilling is currently ongoing in the area known as "*deep water golden triangle*" which consist of West Africa, Gulf of Mexico, and Brazil. See the figure below.

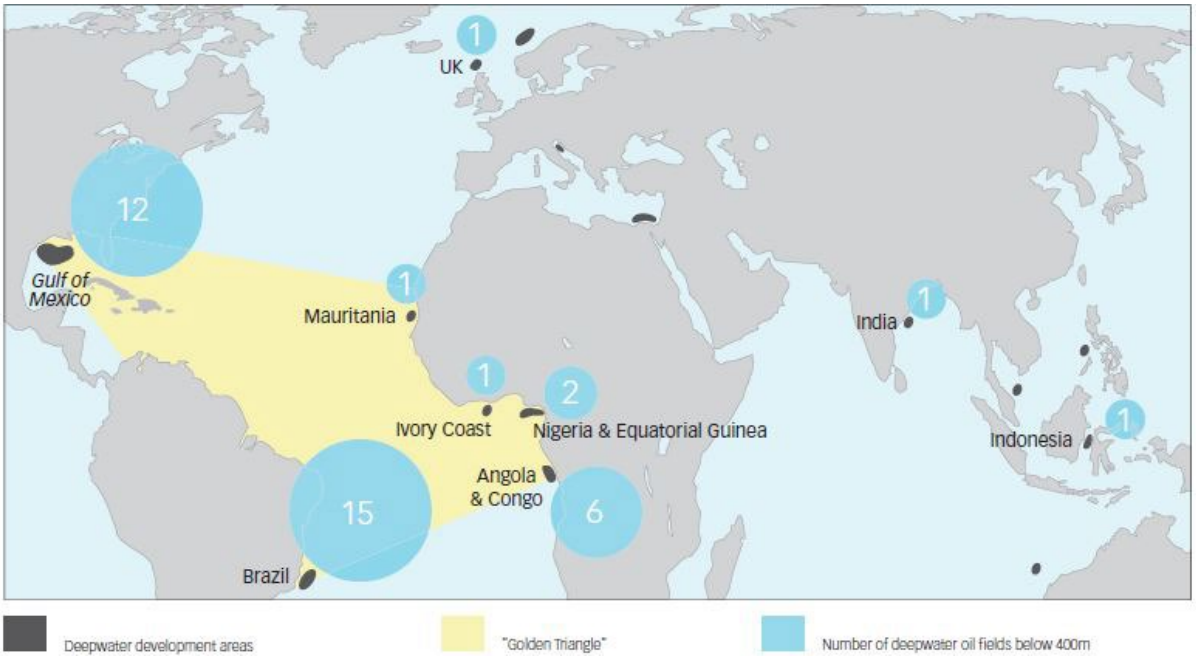

Figure 2: Global Deepwater drilling fields

Source: Lloyds (Sharp and Rees)[478]

Early Deepwater drilling of 1,000 feet took place in 1975, and the 5,000 feet Ultra-deep threshold were surpassed in 1986, all in the Gulf of Mexico. However, the recent record of 10,194 feet were set in 2011.[479] The cost of drilling a deepwater well increase as the depth increase; the increase in cost is exponential,[480] so also is the risk, with significant and complex challenges. A fundamental challenge in deepwater drilling is pore pressure and fracture

[477] Sharp and Rees (n 469) 6. The Macondo incident clearly shows the risk of deepwater drilling when a downside occur and the extent of damage that may arise.
[478] Ibid 9.
[479] Ibid 10.
[480] Crispin Chater and others, 'Drilling Deep in Deepwater: What it takes to Drill Past 30,000 feet" (One Petro, 2-4 February 2010) <https://www.onepetro.org/conference-paper/SPE-128190-MS> accessed 15 March 2015.

gradient. Pore pressure has to be managed as the well deepens, to prevent an uncontrolled inflow into the well and to avoid the risk of a blowout.[481]

The pore pressure and fracture gradient are the most prominent challenges. It is because the operating window within which a Deepwater well can be safely drilled is narrower than its equivalent in Shallow water or onshore drill depth. Before the blowout at Macondo, the well was stopped early because of the narrow window between the fracture gradient and pore pressure, which affected further drilling.[482] Massive salt and tar deposits are common in deepwater drilling than in shallow waters, and they complicate seismic data during drilling.

As said earlier, controlling a well in deep waters is challenging as exemplified by the Macondo blowout. In this instance, access to the wellhead at 4,992 feet of the seabed was considered beyond the diving limit,[483] prompting a declaration that remedial activities were … "*close to Apollo 13 than the Exxon Valdez".*[484] The environmental challenge as seen in the Macondo disaster is enormous. Deepwater oil spills can seriously affect the ecosystem, coastal population, and their businesses. It can also influence the extent of liability a responsible party will bear. The Macondo disaster has increased the regulatory consciousness in some oil-producing countries.[485] While an estimated 14,000 deepwater wells have been drilled around the globe, there had been no significant hydrocarbon pollution accidents before Macondo.

Macondo was an eye opener for the industry demonstrating the nature and extent of possible liability for an oil spill.[486] Deepwater drilling is a hazardous activity as it may result in oil pollution and serious environmental damage.[487] In the event of a deepwater accident, capping the well to stop the spill is also a challenge giving the depth of the well and the sea.[488] There is

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[481] Luiz A S Rocha and others, 'Fracture Pressure Gradient in Deep Water' (*One Petro*, 13-15 September 2004) < https://www.onepetro.org/conference-paper/SPE-88011-MS > accessed 13 March 2015.
[482] Sharp and Rees (n 469) 12.
[483] Divers can operate at 1,500 feet. This would be challenging if a downside occur in deep waters.
[484] Thad W Allen 'National Incident Commander's Report, MC252 Deepwater Horizon' (*Homeland Security Digital Library*, 1 October 2010) < https://www.hsdl.org/?abstract&did=767583> accessed 21 June, 2015. The conditions of deep water create special challenges for the blowout preventer and other critical equipment used for drilling as drilling get deeper. Melvyn F Whitby, 'Design Evolution of a Subsea BOP: Blowout Preventer Requirements Get Tougher as Drilling Goes Ever Deeper' (*Drilling Contractor Special Marine Edition,* May 2007) 36 < https://www.energysupplychain.com/technical_library/P-Drilling%20Contractor-Design%20evolution%20of%20a%20subsea%20BOP-2007.pdf > accessed 23 July 2015.
[485] Tina Hunter, 'Offshore Petroleum Facility Incidents Post Varanus Island, Montara, and Macondo: Have We Really Addressed the Root Cause?' (2014) 38(3) William and Marry Environmental Law and Policy Review 604.
[486] Society of Petroleum Engineer's Notes 2010 < http://www.spe.org/notes> accessed 12 June 2015.
[487] Valerio Spinaci, V., 'Lessons from BP: Deepwater Oil Drilling is an Abnormally Dangerous Activity' (2011) 35(3) Nova Law Review 830.
[488] Peter N Spotts, 'Gulf Oil Spill: Why is it so Hard to Stop' (*Christian Science Monitor*, June 2010) <http://www.csmonitor.com/USA/2010/0608/Gulf-oil-spill-why-is-it-so-hard-to-stop> accessed 11 July 2015.

a likelihood that large scale pollution damage could result from the well giving the drilling environment.[489]

5.1.1.3 Arctic drilling

The Arctic, with its fragile ecosystem, is another extreme environment where drilling is moving into to meet the global energy demands. Until recently, hydrocarbon operations in the Arctic have been taking place mostly in the coastal or near-shore areas. Near-shore drilling is happening within 10 miles of the Arctic coastline.[490] The availability of petroleum reserve in some Arctic waters determines the drive to drill there,[491] especially as the hydrocarbon potential of the Arctic is very significant.[492] However, given the nature of the environment, possible damage from an oil spill may also be quite considerable. The figure below shows the enormous reserve of the Arctic.

Arctic reserves in pictures

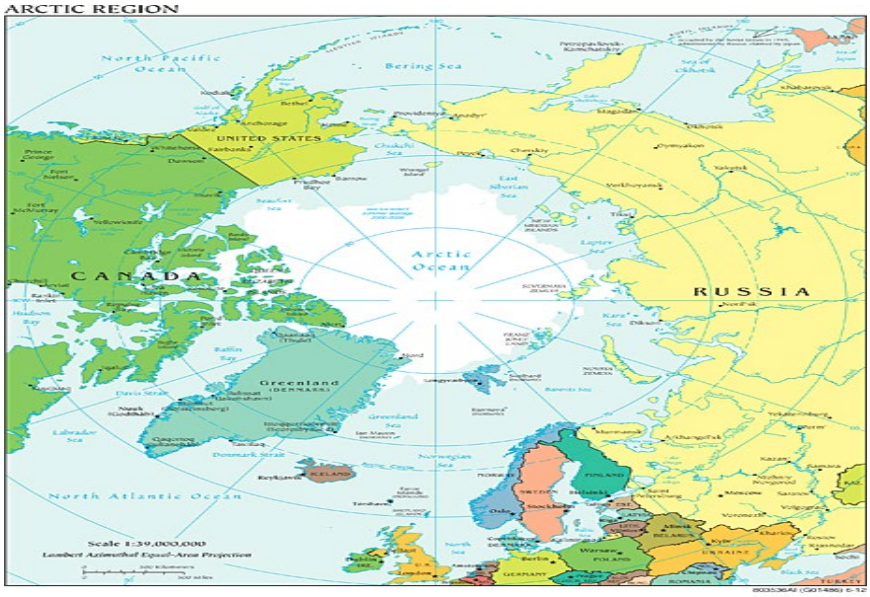

Figure 3: Arctic Region in Focus
Source: CIA: The World Fact Book[493]

[489] Spinaci (n 487) 838.
[490] Sharp and Rees (n 469) 20.
[491] Unger (n 470) 264. Presently, the drive to drill in the Alaska Arctic has been meet with several protest but the US authorities have approved the exploration and production of hydrocarbons in the Alaska Arctic by Shell. See NBC News, 'Shell Gets OK to Drill in the Arctic but must await Spill Gear' (*NBC News*, 22 July 2015) <https://www.nbcnews.com/business/energy/shell-gets-final-ok-arctic-oil-drilling-must-await-spill-n396781> accessed 17 August 2015.
[492] The United States Geological Survey put the North Arctic Circle undiscovered oil at 90bn barrels while the natural gas liquid is put at 44bn.
[493] CIA, 'The World Fact Book' <https://www.cia.gov/library/publications/resources/the-world-factbook/docs/refmaps.html> accessed 11 July 201).

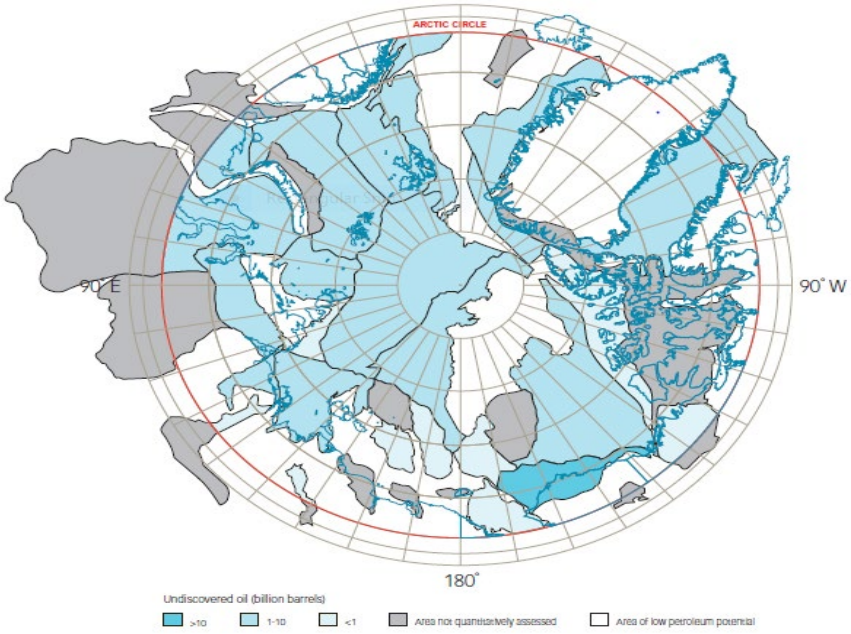

Figure 4: Arctic region undiscovered oil
Source: US Geological Survey[494]

Arctic petroleum operations can be characterised by extreme weather conditions, related drilling hazards, environmental issues to be managed, and an amplified risk of damage to reputation in the event of an oil accident.[495] Sometimes there is extreme cold, seasonal darkness, strong wind, dense fog, and a temperature of about -50^0 C with reduced human work efficiency.[496] There is also an exposure to sea ice and iceberg risk during cold seasons. The Arctic, given its remote location, is an area of great concern. If a spill occurs, it will significantly alter the biological diversity that the Arctic holds, and the result would be severe pollution damage, especially as the ice is melting.[497] The figure below shows a drilling rig in the Arctic

[494] US Geological Survey 2008, 'Circum-Arctic Resource Appraisal: Estimates of Undiscovered Oil and Gas North of Arctic Circle'< http://pubs.usgs.gov/fs/2008/3049/fs2008-3049.pdf > accessed 12 June 2015.
[495] Sharp and Rees (n 469) 22.
[496] Ibid 24.
[497] Unger (n 470) 265.

A drilling rig in the Arctic

Figure 5: The Sakhalin-2 Project
Source: Sakhalin Energy[498]

In the case of a blowout, the response will be difficult by the limited knowledge of the proper response method. The dispersal and clean-up technique of the Arctic has not been sufficiently tested. Another complicating factor is the distance between the possible location of the accident and support services as well as limited accessibility and time to drill a relief well in ice packed areas. Where the spill is not killed fast, the damage may be catastrophic. Such a spill could attract the attention of notable Non-governmental organisation who canvass for the protection of the Arctic environment.

One apparent fact about drilling in Shallow waters, Deep Offshore areas or the Arctic is that a downside can occur during a drilling operation which can lead to severe harm. It is worth noting that the regimes for emergency preparedness, response, and remediation mechanisms to accidental spills is still lacking, and this might facilitate more significant challenges in these (Deepwater and Arctic) extreme climes.[499]

[498] Sakhalin Energy, 'Sakhalin-2 Project: Molikpaq Platform Offshore Sakhalin' <http://www.sakhalinenergy.com/en/ >accessed 20 June, 2015.
[499] Vinogradov (n 8) 335.

The challenging and delicate nature of these waters calls for extra care during drilling operations. This care can be shown by making mutual indemnities subject gross negligence to check conducts that could result in harm to society or loss to another contracting party. Since response, containment, remediation and clean-up are challenging in these environments; the risk allocation should reflect the peculiarities. The practice of risk allocation that incorporates deterrence and liability will incentivise positive conducts that will incentivise harm-prevention during drilling operations in these areas.

5.2 Major offshore drilling accidents

5.2.1 The Macondo Blowout

The Deepwater Horizon accident involved an oil rig, a Mobile Drilling Unit (MODU), and resulted in the released of over 4.9 million barrels of oil into the Gulf of Mexico. The spill followed from a blowout, which killed eleven workers,[500] and caused the worst case of oil pollution in US history, as well as the largest offshore oil spill in the hydrocarbon industry.[501] It was the first of its kind in deepwater areas, triggering significant regulatory[502] and industry changes around the globe. The semisubmersible MODU was owned by Transocean, the drilling contractor, and leased to British Petroleum (BP), the operator of the Macondo Canyon 252 block. The development was owned by BP together with its co-venturers - Anadarko and Mitsui.[503]

The Macondo oil spill covered about 28,958 square miles and impacted 350 – 450 kilometres of the US coast. The leaking was plugged three months after the accident following complex and unprecedented efforts.[504] The well sealing, clean-up costs, compensation from claims for pollution damage, criminal and civil fines were first estimated to exceed US$ 30 billion.[505] However, according to recent estimates, the entire cost would exceed US$ 60 billion, as BP had earlier set aside US$ 43.8 for civil and criminal penalties and clean-up operations.[506] BP

[500] Deanna Fowler, Offshore Oil: A Frontier for International Law-making' (2014) 12(1) Chicago-Kent Journal of International and Comparative Law 180.
[501] Vinogradov (n 8) 335.
[502] Ibid 339.
[503] Egbochue (n 52) 8. Halliburton was the cement contractor while the blowout preventer that failed to lock the well was designed by Cameron International.
[504] National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling (n 1).
[505] Vinogradov (n 8) 335.
[506] Reuters, 'BP reaches $18.7 billion settlement over deadly 2010 Spill' (*Reuters*, 2 July 2015) <http://www.reuters.com/article/2015/07/03/us-bp-gulfmexico-settlement-idUSKCN0PC1BW20150703> accessed 2 July, 2015.

agreed to pay US$ 18 billion for eighteen years to settle all claims[507] in addition to what has been spent on the spill already.

An investigation into the cause of the BP Deepwater Horizon Oil Spill revealed that BP, Transocean and Halliburton were involved in varying degrees of negligence. The report exposed a systemic failure in managing risk and expressed doubt in the safety culture of the offshore hydrocarbon industry.[508] The poor safety culture that led to the Macondo spill[509] was the result of cutting corners and increased pressure to complete the well as the work was already behind schedule by some months. The lease per day for the deepwater rig was US$ 500,000, in addition to the cost of support services for the drilling.[510]

BP, the rig operator, was at the receiving end of claims for compensation and penalties. BP sued Transocean and Halliburton in the attempt to share liability since they negligently contributed to the spill incident. This action was rejected by the court as, under the contract, Transocean was not liable for subsurface pollution damage, its gross negligence notwithstanding.[511] Even BP's attempt to limit the cost of compensation for the Macondo spill failed.[512] BP's option was to settle claims out of court.[513] The claim would have succeeded if the indemnity agreement was subject to gross negligence, and liability could have been distributed according to the principle stated in their contract. In contract law, parties are bound by their contract, and the contract can be enforced where there are no vitiating elements in the contract.[514] The contract between BP and Transocean is presented below

[507]Ibid.
[508] National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling (n 1).
[509] Mark A Cohen and others, 'Deepwater Drilling Policy: Law, Policy and Economics of Firm Organisation and Safety' (2011) 64 Vanderbilt Law Review 1853.
[510] Robert Gramling and William R Freudenburg, 'A Century of Macondo: United States Energy Policy and the BP Blowout Catastrophe' (2012) 56(1) American Behavioural Scientist 67.
[511]In Re: Oil Spill by the Oil Rig 'Deepwater Horizon" in the Gulf of Mexico, on April 20, 2010: Memorandum in Support of Transocean's Motion for Partial Summary Judgment against BP to Enforce BP's Contractual Obligations, including BP's Obligation to Defend, Indemnify and Hold Transocean Harmless against Pollution Claims, November 1, 2011 United States District Court, Eastern District of Louisiana. See also Cameron (n 7) 219.
[512] Financial Times, 'BP Fails in US Supreme Court Gulf Appeal' (December 8 2014) <http://www.ft.com/cms/s/0/2034b7d4-7eec-11e4-b83e-00144feabdc0.html#axzz3k7G0R6f1 > accessed 20 June 2015.
[513] Financial Times, 'BP Settles with Transocean and Halliburton over Gulf Spill' (May 21 2015) <http://www.ft.com/cms/s/0/74842ae0-ff89-11e4-8c46-00144feabdc0.html#axzz3k7G0R6f1> accessed 21 June 2015.
[514] Such as durex, undue influence, unconscionable bargain, undue advantage etc.

ARTICLE 24 of the contract reads thus:

POLLUTION

24.1 CONTRACTOR RESPONSIBILITY

CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR AND SHALL PROTECT, RELEASE, DEFEND, INDEMNIFY, AND HOLD COMPANY AND ITS JOINT OWNERS HARMLESS FROM AND AGAINST ANY LOSS, DAMAGE, EXPENSE, CLAIM, FINE, PENALTY, DEMAND, OR LIABILITY FOR POLLUTION OR CONTAMINATION, INCLUDING CONTROL AND REMOVAL THEREOF, ORIGINATING ON OR ABOVE THE SURFACE OF THE LAND OR WATER, FROM SPILLS, LEAKS, OR DISCHARGES OF FUELS, LUBRICANTS, MOTOR OILS, PIPE DOPE, PAINTS, SOLVENTS, BALLAST, AIR EMISSIONS, BILGE SLUDGE, GARBAGE, OR ANY OTHER LIQUID OR SOLID WHATSOEVER IN POSSESSION AND CONTROL OF CONTRACTOR AND WITHOUT REGARD TO NEGLIGENCE OF ANY PARTY OR PARTIES AND SPECIFICALLY WITHOUT REGARD TO WHETHER THE SPILL, LEAK, OR DISCHARGE IS CAUSED IN WHOLE OR IN PART BY THE NEGLIGENCE OR OTHER FAULT OF COMPANY, ITS CONTRACTORS, (OTHER THAN CONTRACTOR) PARTNERS, JOINT VENTURERS, EMPLOYEES, OR AGENTS…

24.2 COMPANY RESPONSIBILITY

COMPANY SHALL ASSUME FULL RESPONSIBILITY FOR AND SHALL PROTECT, RELEASE,
DEFEND, INDEMNIFY, AND HOLD CONTRACTOR HARMLESS FROM AND AGAINST ANY LOSS, DAMAGE, EXPENSE, CLAIM, FINE, PENALTY, DEMAND, OR LIABILITY FOR POLLUTION OR CONTAMINATION, INCLUDING CONTROL AND REMOVAL THEREOF, ARISING OUT OF OR CONNECTED WITH OPERATIONS UNDER THIS CONTRACT HEREUNDER AND NOT ASSUMED BY CONTRACTOR IN ARTICLE 24.1 ABOVE, WITHOUT REGARD FOR NEGLIGENCE OF ANY PARTY OR PARTIES AND SPECIFICALLY WITHOUT REGARD FOR WHETHER THE POLLUTION OR CONTAMINATION IS CAUSED IN WHOLE OR IN PART BY THE NEGLIGENCE OR FAULT OF CONTRACTOR.

ARTICLE 25
INDEMNITY OBLIGATION
25.1 INDEMNITY OBLIGATION

*EXCEPT TO THE EXTENT ANY SUCH OBLIGATION IS SPECIFICALLY LIMITED TO CERTAIN CAUSES ELSEWHERE IN THIS CONTRACT, THE PARTIES INTEND AND AGREE THAT THE PHRASE "SHALL PROTECT, RELEASE, DEFEND, INDEMNIFY AND HOLD HARMLESS" MEANS THAT THE INDEMNIFYING PARTY SHALL PROTECT, RELEASE, DEFEND, INDEMNIFY, AND HOLD HARMLESS THE INDEMNIFIED PARTY OR PARTIES FROM AND AGAINST ANY AND ALL CLAIMS, DEMANDS, CAUSES OF ACTION, DAMAGES, COSTS, EXPENSES (INCLUDING REASONABLE ATTORNEYS FEES), JUDGMENTS AND AWARDS OF ANY KIND OR CHARACTER, WITHOUT LIMIT AND WITHOUT REGARD TO THE CAUSE OR CAUSES THEREOF, INCLUDING PREEXISTING CONDITIONS, WHETHER SUCH CONDITIONS BE PATENT OR LATENT, THE UNSEAWORTHINESS OF ANY VESSEL OR VESSELS (INCLUDING THE DRILLING UNIT), BREACH OF REPRESENTATION OR WARRANTY, EXPRESSED OR IMPLIED, BREACH OF CONTRACT, STRICT LIABILITY, TORT, OR THE NEGLIGENCE OF ANY PERSON OR PERSONS, INCLUDING THAT OF THE INDEMNIFIED PARTY**, WHETHER SUCH NEGLIGENCE BE***

SOLE, JOINT OR CONCURRENT, ACTIVE, PASSIVE OR GROSS *OR ANY OTHER THEORY OF LEGAL LIABILITY AND WITHOUT REGARD TO WHETHER THE CLAIM AGAINST THE INDEMNITEE IS THE RESULT OF AN INDEMNIFICATION AGREEMENT WITH A THIRD PARTY.*[515]

The Commission's investigation revealed that industry and government preparedness to incidents in the deepwater areas was inadequate.[516] The Commission noted that available technology, containment practice, spill response, and clean-up in deepwater areas fall short of the risk accompanying deepwater drilling which has high-pressure reservoirs of hydrocarbons located thousands of feet below the sea surface.

A vital aspect of the Commission's report is that it raises important issues about moral hazard and complacency. The report notes that technical, operational and other systemic failures were evident as causal factors leading to the accident.[517] Apart from the evidence that the well failed integrity test, and the loss of control of the pressure of the fluid in the well,[518] the drilling contractor failed to carry out several maintenance jobs. Key among them is the repair of a leak in the control pod of the BOP, the critical equipment that played a vital role in the disaster. Again, the drilling contractor did not shut down operations when the it discovered the leak.[519]

Operational failures resulted from bad decisions made in the drilling and control rooms by inadequately trained staff. For instance, the alarm system for early warning was disabled because it had gone off several times, disturbing the staff from sleeping.[520] Again, there were repeated running of well integrity tests when it was apparent that hydrocarbons were flowing into the well, a sign of an anomaly.[521] A confidential survey by Lloyd's Register Group, conducted before the spill, indicates that staff of the drilling contractor expressed concerns about safety practices on the rig but feared reprisals if they reported these practices.[522]

These are bad oilfield practices encouraged by the fact that the drilling contractor has no responsibility for subsurface pollution. Could these instances ordinarily be regarded as gross

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[515]The drilling contract is at <http://www.sec.gov/Archives/edgar/data/1451505/000145150510000069/exhibit10_1.pdf> accessed 27 April 2015. There has been changes to the contract over time. Vastar and Reading & Bates were the parties that originally concluded the contract, before BP and Transocean stepped in as successors to the contract.
[516] National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling (n 1).
[517] Ibid.
[518] King (n 80) 92.
[519] National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling (n 1); Hope P Babcock, 'A Risky Business: Generation of Nuclear Power and Deepwater Drilling for Offshore Oil and Gas' (2012) 37(1) Columbian Journal of Environmental Law 93.
[520] Babcock (n 519) 100.
[521] Ibid.
[522] Ibid.

negligence in oilfield operations? Since no corresponding well liability will attach to the drilling contractor's failure to act, it remained complacent to these fundamental failures relating to the well. The result of this contributory negligence and complacency was a well blowout, killing staff and destroying property.

It is worth noting that global production in deepwater areas is projected to rise up to 10 million barrels per day within the next five years.[523] The drive for exploration and production in the Gulf of Mexico, the North Sea, offshore Brazil, and the coast of West Africa calls, for among other things, a rethink of the risk allocation practice. One question that comes to mind is if a developed and established regime like the U.S was unable to contain the Gulf spill in record time, what becomes of developing regimes such as we have in West Africa and a near developed regime like Brazil?.

5.2.2 The Montara accident

Another major pollution incident during drilling operations is the Montara oil spill offshore Australia. The Wellhead platform (WHP) suffered a blowout on the 21 August 2009, and the result was a massive discharge of hydrocarbons into the Timor Sea.[524] The blowout occurred 250 km North-West of the Australian coast. The spill lasted for eleven weeks, with the well releasing an estimated 1,500 barrels per day at the initial stage, and subsequently, 400 barrels per day, affecting about 90,000 square kilometres of the sea.[525]

The operator, PTTEP AA, faced fines from the Australian authorities, as well as claims of about US$ 2.4 billion from the Indonesian government.[526] This is because the spill had straddled from the Australian waters into Indonesian waters, causing transboundary pollution damage. The spill was the worst in the Australian offshore hydrocarbon history.[527]

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[523] Steven Mufson, 'Trends towards Deep-Water Drilling Likely to Continue' (Washington Post, 22 June 2010) <www.washingtonpost.com/wpdyn/content/article/2010/06/21/AR201006210474.html >accessed 22 June 2015.

[524] Department of Sustainability, Environment, Water, Population and Communities, 'Montara Oil Spill' <http://www.environment.gov.au/coasts/oilspill.html > accessed 21 July 2015; Tina Hunter, 'The Montara Oil Spill and the National Marine Oil Spill Contingency Plan: Disaster Response or Just a Disaster?'(2010) 24(2) Australian & New Zealand Maritime Law Journal 47.

[525] Report of the Montara Commission of Inquiry, <http://www.industry.gov.au/AboutUs/CorporatePublications/MontaraInquiryResponse/Documents/Montara-Report.pdf> accessed 21 July 2015.

[526] Iman Prihandono and Etsy H Dewanti, 'Litigating Cross-Border Environmental Dispute in Indonesian Civil Court: The Montara Case' (2015) 5(1) Indonesian Law Review 15; PTTEP Australia (1), 'Fact Sheet: Government of Indonesia Compensation Claim' <http://www.au.pttep.com/media/20778/government%20of%20indonesia%20compensation%20claim.pdf > accessed 17 July 2015.

[527] Egbochue (n 52) 8.

It is interesting to note that the Indonesian authorities requested Australia to sign a compensation accord for the damage the spill had caused to its coral reefs, fishermen, coastal ecosystem, mangrove, as well as economic losses.[528] One fundamental issue about the Montara spill is that not only did it damage the Australian waters, it also caused a cross-border environmental impact. This resulted in several heads of liability for the responsible party. Again, the Montara Commission established acts of complicity on the part of the operator (PTTEP AA) and contractor (Atlas), having discovered non-compliance with the standard operating procedure.

The Commission further revealed that the well construction standard was inadequate for the H1 Well in Montara and that the contractor compromised the cementing job.[529] As in the Macondo accident, this cement contractor was Halliburton. The Commission noted that good oilfield practices were not followed and that key company personnel lacked basic competence to operate the rig. Also, the drilling contractor failed to recognise the poor cementing job. In the area of rig safety, the Commission noted that there was a systemic failure between the operator and the contractor.[530] In the end, operator and contractor can be said to be "*impari delicto*"[531]

It is worth noting that communities could still maintain additional claims action in an Indonesia civil court against the operator of the rig, PTTEP AA. Under Article 100 RV of the Indonesian civil procedure, a foreign company can be sued where there exists a contractual relationship between PTTEP AA and PTTEP PCL.[532] PTTEP PCL is a company registered under the laws of Thailand but with a business interest in Indonesia.

One fundamental thread that runs through the two case studies is that both operator and contractor were complicit in the blowout that resulted in severe environmental damage. Under common law, both parties will be jointly liable, and they will both contribute to offset the liability for damage according to their causal responsibility. The complicity of parties resulting in damage in the Macondo and Montara incidents suggests a rethink of the risk allocation practice in drilling operations.

[528]Vinogradov (n 8) 339. Those losses are typical examples of indirect loss.
[529] The Commission however noted that the cementing job was done in line with operator's direction.
[530]Report of the Montara Commission of Inquiry (n 380); Fowler (n 500) 187.
[531] Meaning that they are guilty of the same offence.
[532] Prihandono and Dewanti (n 526) 26-27.

While a Macondo-type incident was never envisaged in deepwater areas or the Arctic, its occurrence may not be entirely ruled out as harm is synonymous with exploration and production. Even the BP Commission revealed that a Macondo-type disaster could not be ruled out in the future.[533] Is there a possibility of catastrophic damage in the North Sea or the Gulf of Guinea were huge explorations activities are on-going?

5.3 The risk of a Macondo-type catastrophe in Shallow Water or other Deepwater (e.g. the North Sea and the Gulf of Guinea)

The choice of the North Sea and the Gulf of Guinea is based on the amount of proven oil reserve in these waters, and the extent of hydrocarbon operations carried out there by IOCs. Currently, the North Sea holds oil reserves are estimated at 24 billion barrels of oil equivalent[534] while the Gulf of Guinea holds about 59.22 billion barrels of oil equivalent as at 2011.[535]

The Gulf of Mexico and the Gulf of Guinea have similar environments and drilling conditions. They both fall under the "*deep-water golden triangle*"[536] where Nigeria and Angola have verifiable hydrocarbon reserves with visible offshore presence under this triangle. A Macondo-type spill will affect the Gulf of Guinea the same way as it did to the Gulf of Mexico. The situation in the Gulf of Guinea may be even more dramatic as the regulatory regime and response system are less than adequate.

In the North Sea, the drilling conditions are dissimilar to those in the Gulf of Mexico (GoM) as some oil wells are located within depths of 100 metres, with the Shetland Islands holding the deepest wells.[537] Other drilling depths can also extend to about 1,100 metres, depending on the area where the drilling is being carried out in the North Sea. It has been asserted that high temperature or high-pressure deep-water drilling analogous to that of Macondo is absent at present in the North Sea.[538]

Evaluation from experts indicates that drilling depths in the GOM is much deeper than in the North Sea. The depth of the well determines the possibility of an accident and the impact in the event of a downside. This is so as the response and management of well pollution, BOP failure

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[533] National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling (n 1) p.xi.
[534] BBC, 'North Sea oil: Facts and figures' (BBC Scotland, 24 February 2014) <http://www.bbc.co.uk/news/uk-scotland-scotland-politics-26326117 > accessed 23 March 2017.
[535] Kamal-Deen Ali, *Maritime Security Cooperation in the Gulf of Guinea: Prospects and Challenges* (Brill Nijhoff 2015) 40.
[536] Sharp and Rees (n 469) 9.
[537] Smedt and Wang (n 1) 60.
[538] Joris J G Jansen, 'Preventing a Next Deepwater Horizon?: Evaluation of the Regime for the Prevention of and Response to Accidental Oil Spills'(MSC Thesis, Utrecht University 2012).

or the need for a relief well depends to an extent, on the depth of the sea and the well itself.[539] Experts note that extra stress is put on subsea equipment by irregular underwater current, velocity, temperature and pressures in the deep. As the stress increases, the drill bit descends into the deep because of the possibility of coming across unusual geological pressures.[540] It means that as the well deepens, so the risk increases, but small depths would mean low risk as in the North Sea. However, in the absence of the right technology, it is challenging to have the full projection of risks based on water depth.[541]

Although drilling in shallow water is exposed to less geological pressures and temperatures, the hazard is not reduced compared to deepwater, as the water depth is not the only factor that determines offshore drilling risks.[542] Deepwater has even some advantage by retaining a massive spill providing some time for response and containment measures before it gets to the surface and coastline.[543] This is different in shallow waters. Again, reports have shown that oil pollution in the deepwater has the advantage of evaporating, being chemically dispersed, recovered from the wellhead, skimmed or burnt.[544] This may not be so of shallow water as the oil may become visible almost immediately. Climatic conditions may also facilitate accidents in some shallow water like in deepwater, as can be noticed in the North Sea.

The possible risk in shallow water, therefore, appears to be similar to that in the deepwater environment. While some experts believe that the shallow water risk is low, the same belief was exercised in Deepwater because nobody expected a Macondo-type disaster until it happened.[545] This demonstrates the limit to which expert judgement can be sustained. That an accident has not happened in an area before does not mean it cannot happen. The incident at Macondo provided some vital lessons. From the facts stated and inferences deduced, it is submitted that a Macondo-type disaster is possible in the North Sea where drilling occurs in mostly shallow waters. Note that the geological and climatic conditions in the Arctic will present significant challenges in terms of emergency for response and well control. Apart from the area of occurrence, the risk of a pollution post-Macondo will also impact on the willingness to bear risk coupled with the attendant damage to the reputation of the responsible party.

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[539] National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling (n 473) 17.
[540] Ibid.
[541] Smedt and Wang (n 1) 63.
[542] National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling (n 473) 17.
[543] Ibid 16.
[544] National Oceanic and Atmospheric Administration, 'Oil Budget Technical Report' (November 23 2010) <http://www.noaanews.noaa.gov/stories2010/20101123_oilbudget.html > accessed 28 March 2017.
[545] Sharp and Rees (n 469) 28.

5.4 Offshore drilling accidents and the willingness to bear risks

Oil and gas operations come with attendant implications when an accident occurs. Damage or liability also shapes the mind of regulators, shareholders and the public. Parties in an oil and gas contract agree to protect their interests, make profit and hope for a positive outcome. From the literature examined, the Macondo incident has changed the risk perception of key players in the industry, thus impacting on the willingness to assume risks. In this regard, one scholar noted that *"[a]s oil spills can have a large material impact on companies, there is also a risk of litigation from a company's own shareholders. After the Deepwater Horizon incident, several groups of shareholders filed lawsuits against BP claiming that the company misled them about its commitment to safety and operational integrity. Liability is a deterrent to spills. Currently, the operators hold the liability; however, the contractors physically perform the work and thus control a portion of the risk. In the case of the Deepwater Horizon, the U.S. Coast Guard named some contractors as potentially responsible parties, thus complicating traditional liability lines. Furthermore, BP began an aggressive legal campaign to recover some costs from its contractors. Post-Deepwater Horizon, the traditional distribution of risks and benefits between operators and contractors, is being challenged."*[546]

The incident at Macondo discouraged operators from continuing to shoulder the social cost of harm or loss. The aversion to risk continues unabated as this study gleans from the literature,[547] and new contracts revealed under strict confidential terms. The price for oil in today's market has heightened the aversion to risk. The willingness to bear risk is closely dependent on the market price of crude[548] as the operator hopes to recoup its expenses and make a profit after its huge capital investment.

With the current price of oil and the implication of an offshore accident on a responsible party, it is doubtful if operators will be more willing to shoulder solely, certain risk in the offshore oil contracting practice. Operators, to show their disinclination to risk, now seek to transfer some liability arising from well pollution to contractors.[549] Another reason for the lack of willingness to bear risk stems from the fact that pollution often leads to serious reputational damage. This

[546] Alberto Serna Martin, 'Deeper and Colder: The Impacts and Risks of Deepwater and Arctic Hydrocarbon Development' (2012) <http://www.sustainalytics.com/sites/default/files/unconventional-oil-andgas-arctic-drilling_0.pdf> accessed 26 April 2019.
[547] Economist Intelligence Unit (n 68) 12; Cameron (n 7) 213.
[548] Mazerov, K., 'Risks aren't New to Industry, but in Deepwater, Strategic Management becomes Critical' (*Drilling Contractor*, September 2008) 117 <http://www.drillingcontractor.org/dcpi/dc-septoct08/DC_Sept08_RiskManagement.pdf > accessed 23 April 2017.
[549] Cameron (n 7) 213.

was shown in the Macondo oil spill case, where BP suffered significant losses from a sharp drop in its share price following the public outcry.[550] Sometimes, the reputational risk may not have immediate implications. However, it may affect the responsible party's ability to secure new contracts given the negative reputation it has been associated with.

5.5 Conclusion

Different drilling environments present diverse challenges. Significant challenges are presented in Ultra-deepwater and the Arctic. As the search for hydrocarbon moves into extreme climes, the risk in these extreme environments will shape the risk perception of key entities in a post-Macondo era. This may not be unconnected with the causal contribution by entities to harm or loss as seen in the Macondo and the Montara spill. The drilling environment is fundamental in determining the response, containment, clean-up and remediation of a pollution spill, and the liability that follows for a spill. The magnitude of the accident leaves implications on the reputation of responsible parties,[551] hence the aversion to risk in a post-Macondo era. The nature of the drilling environment calls for extra care to be exercised. It is, therefore, necessary for mutual indemnity to be subject to gross negligence so that severely awful behaviours could be deterred, and certain risk avoided.

[550] The Guardian, 'BP shares Plunge over Oil Spill in Gulf of Mexico' (*The Guardian*, April 2010) <https://www.theguardian.com/environment/2010/apr/29/bp-shares-plummet-after-oil-spill > accessed 12 March 2017.

[551] The Macondo oil spill adversely affected the reputation of BP, leading to a plummeting of its shares in the stock market.

Chapter 6 : Risk allocation under a Concession regime

"…*undoubtedly, contracts exempting persons from liability for negligence induce a want of care, for the highest incentive to the exercise of due care rest in a consciousness that a failure in the respect will fix liability to make … compensation for any injury resulting from cause. It has therefore been declared to be good doctrine that no person may contract against his own negligence…*"[552]

6.0 Introduction

The practice of risk allocation assumes various dimensions in different regimes, given their peculiarities and statutory support. Risk allocation is a central driver in offshore drilling contracts, primarily as it determines the extent of a party's liability in the event of an accident. This chapter aims to examine in detail, the practice of risk allocation under two Concession regimes and to determine whether or not these regimes or model forms use mutual indemnity agreements as a shield against gross negligence.

6.1 Concession Regime: UK and US in focus

The notion of a regime in this context means a web of laws and regulations relating to or regulating petroleum transactions and/or activities within a particular country.[553] These may include the constitution, general and specific legislation, regulations, as well as model contracts. Such regime may have the form of a PSC, where an operator has no ownership of the produced hydrocarbons, or of a Concession, where an operator owns the extracted hydrocarbons having been granted the right to search, bore for, and produce them.[554]

Sometimes model contracts are called "model forms", "contract templates", "model agreements"[555] etc. They are developed and endorsed by practitioners in the hydrocarbon industry on a mutual understanding for full acceptance.[556] As has been stated in this study, industry practitioners in the UK use the LOGIC model form contracts, while in the US, they use the AIPN and IADC model contracts are used. Those jurisdictions which apply the PSC approach adopt elements from both systems of model contracts.[557]

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[552]This was the dictum of the court in *Callahan v. Nystedt, 641 A.2d 58, 61 (R.I. 1994) (quoting State v. Von Bulow, 475 A.2d 995, 1004 (R.I. 1980));* Beerworth (n 40) 18.

[553] OpenOil, 'Oil Contracts: How to Read and Understand them' <http://openoil.net/understanding-oil-contracts/> accessed November 23 2015.

[554] Claude Duval and others, *International Petroleum Exploration and Exploitation Agreements: Legal, Economic and Policy Aspects,* (2nd edn, Barrows 2009) 57-71.

[555] Timothy A Martin, 'Model Contracts: A Survey of Global Petroleum Industry' (2004) 22(3) Journal of Energy and Natural Resources Law 282.

[556] Ibid.

[557] Notable associations that provide model form contracts for oilfield and construction services are as follows: the International Association of Petroleum Negotiators – AIPN (www.aipn.org); Leading Oil & Gas Industry Competitiveness – LOGIC (www.logic-oil.com); the International Association of Drilling Contractors – IADC (www.iadc.org) and the International Association of Consulting Engineers – FIDIC (www.fidic.org). It is instructive to note that some major international companies in the hydrocarbon and construction industry usually

6.1.1 The United Kingdom

The UK hydrocarbon industry is based on a Concession system administrated by the Oil and Gas Authority.[558] Concessions are akin to contracts in their setup, but they also have some regulatory components. The rights, duties and obligations regulating the relationship between the Government and a private party (licensee) are defined in the licence and are also set out in the Model Clauses.[559] The UK Petroleum Act requires that such regulatory conditions – Model Clauses – be first published in a secondary legislation, which is then incorporated by reference into new licences.[560]

The legal framework for offshore hydrocarbon activities in the UK includes acts and regulations which cover aspects of petroleum operations. However, no specific legislation deals with the issue of liability for injury, property damage or pollution damage in its entirety. Liability could be based on the offshore pollution liability agreement (OPOL), a strict liability regime; statutes and model clauses; and tort.[561] Model clauses obligate licensees to use methods customary to good oilfield practice and to employ steps that will prevent harm in the area they are licensed to operate.[562] No limit on liability exists under tort as an operator is liable for all costs so long as the damage is reasonably foreseeable. However, a party cannot recover purely economic losses as the damage must relate to property or persons to enable the recovery of this type of loss.[563]

Industry practitioners in the UK adopt the LOGIC model form contract to allocate risk among themselves contrary to the fault-based of position harm and liability. Before looking at the model contracts, this chapter will examine laws and regulations dealing with hydrocarbon activities.

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have their own type of model form contracts which may not be immediately available to the public but are widely applied in their contracts.

[558] Oil and Gas Authority, 'Types of Licence' < https://www.ogauthority.co.uk/licensing-consents/types-of-licence/ > accessed 23 January 2017.

[559] See for instance, The Petroleum Licensing (Production) (Seaward Areas) Regulations 2008, and its 2017 amendment, <https://www.ogauthority.co.uk/licensing-consents/overview/ > accessed 20 May 2018.

[560] Oil and Gas Authority, 'Licensing and Consents: Overview'< https://www.ogauthority.co.uk/licensing-consents/overview/ > accessed 20 May 2018.

[561] Cameron (n 7) 211-212.

[562] Environmental Damage (Prevention and Remediation) Regulations of 2009, Schedule to paragraph 23(1).

[563] Cameron (n 7) 211.

6.1.1.1 The U.K Petroleum Act

The 1998 Petroleum Act[564] is the primary legislation that regulates hydrocarbon activities in the UK. Other legislation or regulations derive their authority from it and are intended to complement and further regulate hydrocarbon activities in the UK. Most of the hydrocarbon deposits and activities are located offshore, in the North Sea Continental Shelf. There is no explicit provision allocating the risk of environmental damage during offshore petroleum activities in the 1998 Act. However, related regulations control and sanction hydrocarbon activities, including such issues as liability for offshore pollution damage to the environment during drilling operations.

Fundamentally, the 1998 Act governs the question of petroleum ownership;[565] issuing of licences for the exploration and exploitation of hydrocarbons;[566] and provision of other administrative duties that may require Her Majesty or the Secretary of State to act upon. Petroleum Regulations govern such questions as to liability for pollution damage during offshore hydrocarbon activities. Some of these offshore regulations relevant to this study will be discussed later in this chapter.

6.1.1.2 Offshore Pollution Liability Agreement (OPOL)

OPOL was originally conceived as a short-term measure to address the increasing pollution concerns which arose as a result of increasing offshore drilling activities in North West Europe in the 70s. Its adoption was prompted in the first place by the delay with the ratification of the Convention of Civil Liability for Oil Pollution Damage Resulting from Exploration for and the Exploitation of Seabed Minerals (CLEE)[567] due to the failure by its parties to establish and agree on the limits of liability. It led to the acceptance of OPOL by the UK government as a proper vehicle to tackle liability and funding concerns for pollution damage as contained in the licence conditions.[568]

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[564] The Petroleum Act 1998, United Kingdom.
[565] Ibid S.2.
[566] Ibid S.3.
[567] Simon Baughen, 'Environmental Damage and UK Offshore Operations: Uncertain Liabilities in Deep Waters' (2016) 28 Journal of Environmental Law 507.
[568] Sergei Vinogradov and Smith I Azubuike, 'Arctic Hydrocarbon Exploration and Production: Evaluating the Legal Regime for Offshore Accidental Pollution Liability' in Lassi Heininen and Heather Exner-Pirot (eds), *Arctic Development: In Theory and in Practice* (Northern Research Forum 2018) 307 <https://arcticyearbook.com/ > accessed 2 November 2018.

All offshore operators in the UK hydrocarbon industry must participate.[569] OPOL membership is a condition precedent for the grant of a licence for petroleum operations in the UK. It establishes a strict liability regime that is contractual and voluntary.[570] Under existing statutory law,[571] no obligation to take out financial security exists. However, this requirement is implemented through the Oil and Gas Authority (OGA) in the licensing process.[572] Membership of OPOL and evidence of financial responsibility[573] is a condition for the grant of a licence under OGA practices, for any drilling operations.

Under OPOL, pollution damage and the cost of remediating measures, of an operator, are capped at a maximum of US $250 million per accident. The obligation of meeting all the pollution claims is solely that of the operator.[574] In the event of a default by an operator to meet its financial obligation, a mutual guarantee scheme is provided by OPOL where all other operators must contribute up to US $250 million to settle any resulting claim.[575] It must also be noted also that an operator may be liable for recoverable losses beyond the limits of OPOL. OPOL is not a fund and does not limit liability but guarantees payment if a member fails to meet its obligations.

A quick examination of OPOL reveals some weaknesses in its application. It has been stated that OPOL is not a fund, but an agreement entered into by operators to provide financial security and compensate losses where an operator is unable to do so. Its coverage is limited to the pollution damage that falls under direct loss or damage resulting from oil pollution. It means that damage to property and clean-up operations would receive compensation, but it is not

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[569] <www.opol.org.uk/> accessed February 23 2017.

[570] Greg Gordon, 'Oil, Water and Law don't mix: Environmental Liability for Offshore Oil and Gas Operations in the UK Part 1: Liability in the Law of Tort/Delict and under the Petroleum Licence' (2013) 25 Environmental Law and Management 4; OPOL `Guidelines for claimants' <http://www.opol.org.uk/downloads/opol-guidelines-oct10.pdf > accessed 23 February, 2017; Baughen (n 567) 508.

[571] There is no obligation under the Petroleum Act of 1998 to procure pollution liability insurance as a licensing requirement.

[572] These conditions are contained in DECC Guidance notes. DECC 'Guidance Note to UK Offshore Oil and Gas Operators on the Demonstration of Financial Responsibility before Consent is Granted for Exploration and Appraisal Wells on the UKCS' <https://www.gov.uk/government/uploads/system/uploads/attachment___data/file/68885/7265^financial-responsibility-guidelines.doc> accessed 27 February 2017.

[573] Financial responsibility can be demonstrated through insurance, self-insurance guarantee etc. Insurance is however widely preferred by OPOL members. Oil Spill Prevention and Response Advisory Group (OSPRAG), Strengthening UK Prevention and Response' (Final Report, September 2011) <https://oilandgasuk.co.uk/product/final-report-of-the-uk-oil-spill-prevention-and-response-advisory-group/> accessed 20 January 2017.

[574] Vinogradov and Azubuike (n 568); Baughen (n 567) 508.

[575] Cameron (n 7) 211. Contribution by members is based on the number of offshore facilities owned by parties. This study posits that this system of contribution on the basis of number of facility owned may bring about moral hazard as operators with less facilities but with high risk behaviour may impact the incentive to prevent pollution and ensure safety on their facilities.

immediately clear if economic losses and personal injury from an offshore operation would be covered.[576]

Again, operators' guarantee to provide financial coverage when required is merely a private agreement which is enforceable in the UK as membership is an ex-ante condition to obtaining a licence. It, therefore, assumes a voluntary character in states where it is not a licensing condition, hence a weak guarantee of financial coverage. There is also the concern about the adequacy of the liability amount to address a possible Macondo-type incident.[577] OPOL's limit could be exceeded. Modelling work authorised by OSPRAG in the UK after the Macondo accident revealed that in some cases the maximum liability limit provided by OPOL (US $250 million) might be insufficient to settle claims. Also, OPOL does not cover the cost of drilling a relief well. While this was not a source of worry in the pre-Macondo period, it has become a matter of concern at present, necessitating new guidelines by OGA UK.[578]

Additionally, the benefit of pooling (mutual monitoring and risk distribution) would be elusive under OPOL as it is not a risk-sharing structure. OPOL is only an interventionist scheme where an operator is unable to meet his financial obligation to settle claims. The scheme is unlike a risk distribution that guarantees risk sharing. OPOL also does not incentivise mutual monitoring for harm prevention but only monitors members' insolvency requiring intervention. Finally, the practical operation of OPOL has not been tested; there has never been an insolvency intervention. It has no experience and has never been involved in claims handling,[579] which, however, does not diminish its importance.

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[576] The meaning of 'Direct Loss' has not received clarification as no claim has been made against OPOL. Bio by Deloitte, 'Civil Liability, Financial Security and Compensation Claims for Offshore Oil and Gas Activities in the European Economic Area' (Final Report Prepared by the European Commission, DG Energy, Brussels, August 14, 2014) 154.

[577] Energy and Climate Change Committee, 'UK Deepwater Drilling – Implications of the Gulf of Mexico Oil Spill' (*Second Report of Session 2010 – 11*, Vol. 1. P.24-26 House of Commons, 6 January 2011) <www.publications.parliament.uk/pa/cm201011/cmselect/cmenergy/450/45002.htm> accessed 25 February 2017.

[578] Gordon, Oil and water don't mix (n 570) 11; OGUK `Guidelines to Assist Licensees in Demonstrating Financial Responsibility to DECC for the consent of Exploration and Appraisal Wells in the UKCS' (2012) <https://oilandgasuk.co.uk/product/guidelines-to-assist-licensees-in-demonstrating-financial-responsibility-to-decc-for-the-consent-of-exploration-appraisal-wells-in-the-ukcs-issue-1-november-2012/ >accessed 20 January 2017.

[579] Michael Faure and Jing Liu, 'Pooling Mechanisms for Offshore Liability' in Michael Faure (ed), *Civil Liability and Financial Security for Offshore Oil and Gas Activities* (Cambridge University Press 2017) 210.

6.1.1.3 The Offshore Petroleum Licensing (Offshore Safety Directive) Regulation (OSD)

One of the regulations that followed the Macondo incident is the Offshore Petroleum Licensing Regulation (OSD).[580] This Regulation has led to changes to the health, safety and the environmental regime of the UK.[581] In line with the spirit and letter of strict liability for oil pollution damage, the OSD places financial responsibility for environmental damage arising from offshore petroleum operations carried out by the offshore licensee, on the later.[582] The Regulation emphasises the responsibility of the licensee to prevent and remedy environmental damages caused during hydrocarbon operations.

For the sake of clarity, an offshore licensee is a person that holds an offshore licence[583] or in addition to that, is required to submit an abandonment programme regarding activities in question. One can see that a contractor is not a licensee within the meaning of the Regulation, and has no responsibility placed on him to remedy environmental damage during petroleum operations, either occasioned by him (contractor) during drilling operations or with his contribution.

A licensee may be the operator of an offshore operation or the person granted a licence by the licensing authority.[584] In most cases, the operator is the same as the licensee, but sometimes, the operator is appointed by the licensee from among the co-venturers. The OSD defines the operator as a person appointed either as an installation operator or a well operator or both. The meaning of installation is set out in the Offshore Installations and Pipeline Works Regulation of 1995.[585] Regulation 3 (1) of MAR defines an installation as "a structure[586] used for several activities related to the exploitation of oil and gas resources". The term activities include but is not limited to "exploring for, or exploiting, mineral resources through a well". Under Regulation 2 of OSD, an installation operator is a person who carries out offshore petroleum operations but has nothing to do with the planning and execution of well operations. Further to

[580] The Offshore Petroleum Licensing (Offshore Safety Directive) Regulation 2015, entry into force on 19th July, 2015, hereinafter referred to as the Offshore Safety Directive (OSD).
[581] Health and Safety Executive (HSE) 'Offshore Safety Directive Regulator (OSDR)' <http://www.hse.gov.uk/osdr > accessed 14 January 2016.
[582] OSD (n 580) section 10.
[583] Ibid, Section 2. An offshore licence is granted under Section 3(1) of the Petroleum Act of 1998 to search, bore for and get petroleum.
[584] Regulation 2 of the Offshore Safety Regulation
[585] Regulation 3 of the Offshore Installations and Pipeline Works (Management and Administration) Regulations 1995, hereinafter referred to as the Management Regulations (MAR)
[586] The structure could be a fixed installation or a mobile installation, such as a Mobile Offshore Drilling Unit.

this definition is the definition of a well operator which the OSD refers to as a person appointed by regulation[587] to carry out the planning and execution of well operations.

While a contractor may be involved in offshore drilling activities, which is a form of offshore petroleum operation, planning and execution of well operations is the responsibility of the operator of a well who hires the drilling to a contractor. The distinguishing factor here is the planning and execution of well operations, which is the duty of the operator. Under the regulations mentioned above, it stands to reason that a contractor does not qualify as an operator for environmental liability for pollution damage, even when he is the operator of an offshore installation. Accordingly, a contractor may have no pollution obligation under these laws.

However, the meaning of a duty holder in the OSD leaves one to imagine if a contractor has responsibility for environmental damage during offshore petroleum operations. Regulation 2 of the OSD 2015 defines a duty holder as an operator with respect to production installations, and as an owner[588] with respect to non-production installations. This reference to duty holder under the Regulation is a reference to the person on whom the duty of the installations is placed, particularly the safety case regulations. A duty holder according to the lexicon of the International Association of Drilling Contractors (IADC)[589] is, for fixed installations, the operator of the installation, and the owner of the installation, in the case of a mobile installation. It may be assumed that a contractor who owns a Mobile Drilling Unit qualifies as a duty holder for well safety and attendant responsibilities. This is even so as duties may arise under relevant health and safety laws in the UK, which may extend responsibility to other persons.[590]

The OSD and other regulations mentioned in this study followed the European Union Directive on the safety of offshore oil and gas operation issued in 2013. The EU Directive of 2013 was a response to the Macondo disaster in the Gulf of Mexico.[591] The EU Directive aims to reduce the consequences of major accidents by setting minimum standards for safe offshore oil and

[587] Regulations 5 and 6 of OSD, 2015. These Regulations provides steps a licensee or licensing authority must follow before appointing an operator for an offshore petroleum operation.
[588] An owner under Regulation 2 of the OSD 2015 is a person who controls or is entitled to control the operation of a non-production installation. Non-production installations includes Mobile drilling units, flotels etcetera.
[589] International Association of Drilling Contractors (IADC), 'Drilling Lexicon: Oil and Gas Drilling Glossary' <http://www.iadclexicon.org/duty-holder > accessed January 21 2016.
[590] Other persons here includes the contractor who may own a non-production installation.
[591] Bernd Bluhn, 'What has Europe learned after the Deepwater Horizon/Macondo incident?' International Oil Spill Conference Proceedings, May 2014, 2014(1), pp. 348-360. Available from <https://www.ioscproceedings.com/doi/abs/10.7901/2169-3358-2014.1.348?journalCode=iosc> accessed 23 December 2015.

gas operations.[592] The EU Directive re-enacted the responsibility of the operator of an offshore operation when oil pollution occurred and emphasised the need for member states to replicate the same. The essence is to make an operator responsibility for acts or omissions, leading to or contributing to significant accidents were occasioned by contractors.[593] Under the Directive, member states are to ensure that the financial responsibility to prevent and remedy environmental damage occasioned by offshore petroleum operations is placed on the licensee or operator, even when such activity was carried out on behalf of the operator or licensee.[594] This directive could encourage moral hazard on the part of the contractor.

It may be safely asserted that under the laws and regulations dealing with oil pollution damage during offshore petroleum operations in the UK, the operator/licensee of an offshore installation is responsible for pollution damage caused to the environment; the party at fault notwithstanding. This operator responsibility is so as the relevant laws and regulations reflect a strict liability approach. The applicable legislation makes no room for the burden of drilling operations to be distributed as this is left for to parties to handle same in their contracts. An examination of model contracts in the UK becomes key to determine the nature and extent of the distribution of the burden of pollution during offshore petroleum operations.

6.1.2 United Kingdom model contracts

The use of model contracts by players in the offshore oil and gas industry in the UK has become an established practice.[595] This is so as the traditional tort system of fault liability is set aside for a risk allocation system based on the contract between parties. The risk allocation focuses on property damage, injury or death of personnel and pollution contamination. The provisions sometimes extend to group members under a mutual indemnity clause[596] or a knock for knock scheme regardless of cause.

Under the mutual indemnity arrangement in LOGIC model contracts, the operator (company) indemnifies contractors (and a contractor group) for third-party facility damage, personal injury

[592] Ursula O' Donnell, 'New EU Directive on the Safety of Offshore Oil and Gas Operations' (*Standard Bulletin: Offshore Special Edition,* November 2013) <http://www.standard-club.com/media/1557512/new-eu-directive-on-the-safety-of-offshore-oil-and-gas-operations.pdf> accessed 23 March 2016.
[593] The EU Directive of 2013, Article 3 (2).
[594] Ibid Article 7.
[595] Reference to model contracts here means the LOGIC and CRINE module contracts used to allocate risk between operators and contractors in the UK North Sea operations.
[596] Gordon (n 3) 447.

or death of operator's personnel without regard to fault.[597] However, there are qualifications, applied especially for non-pollution damage provisions.[598] The application of the knock for knock principle in contracts is founded on the principle of freedom of contract and the need for the courts to give effect to the contract of parties when the vitiating elements of a contract are absent.[599] This position has also been echoed by the English courts, for instance, in the ***London Bridge and the Orbit Valve cases***.[600] It is worth noting that not all indemnities are enforceable as the court will look at the wordings of the agreement.[601]

The relevant section of the LOGIC form is reproduced below for ease of understanding.

19. INDEMNITIES

19.1 *The CONTRACTOR shall be responsible for and shall save, indemnify, defend and hold harmless the COMPANY GROUP from and against all claims, losses, damages, costs (including legal costs) expenses and liabilities in respect of:*

(a) loss of or damage to property of the CONTRACTOR GROUP whether owned, hired, leased or otherwise provided by the CONTRACTOR GROUP arising from, relating to or in connection with the performance or non-performance of the CONTRACT; and

(b) personal injury including death or disease to any person employed by the CONTRACTOR GROUP arising from, relating to or in connection with the performance or non-performance of the CONTRACT; and

(c) subject to any other express provisions of the CONTRACT, personal injury including death or disease or loss of or damage to the property of any third party to the extent that any such injury, loss or damage is caused by the negligence or breach of duty (whether statutory or otherwise) of the CONTRACTOR GROUP. For the purposes of this Clause 19.1(c) "third party" shall mean any party which is not a member of the COMPANY GROUP or CONTRACTOR GROUP.

19.2 *The COMPANY shall be responsible for and shall save, indemnify, defend and hold harmless the CONTRACTOR GROUP from and against all claims, losses, damages, costs (including legal costs) expenses and liabilities in respect of:*

(a) loss of or damage to property of the COMPANY GROUP, whether :-

(i) owned by the COMPANY GROUP, or

(ii) leased or otherwise obtained under arrangements with financial institutions by the COMPANY GROUP which is located at the WORKSITE arising from, relating to or in connection with the performance or non-performance of the CONTRACT; and

(b) personal injury including death or disease to any person employed by the COMPANY GROUP arising from, relating to or in connection with the performance or non-performance of the CONTRACT; and

(c) subject to any other express provisions of the CONTRACT, personal injury including death or disease or loss of or damage to the property of any third party to the extent that any such injury, loss or damage is caused by the negligence or breach of duty (whether statutory or otherwise) of the COMPANY GROUP. For the purposes of this Clause 19.2(c) "third party" shall mean any party which is not a member of the CONTRACTOR GROUP or COMPANY GROUP.

(d) loss of or damage to such permanent third party oil and gas production facilities and pipelines and consequential losses arising therefrom, as specified and defined in and in accordance with Appendix 1 to Section I – Form of Agreement where such loss or damage is arising from, relating to or in connection with the performance or non-performance of the CONTRACT. The provisions of this Clause 19.2(d) shall apply notwithstanding the provisions of Clause 19.1(c).

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[597] Smith (n 25) 681.
[598] LOGIC, Supply of Major Items, cll 22.i(c).
[599] Vitiating elements of a contracts are durex, undue influence, fraud, misrepresentation, incapacity to contract.
[600] Caledonian North Sea Ltd v. London Bridge Engineering Ltd and Others (n 29); E .E Caledonia Ltd v. Orbit Valve Co. Plc [1994] 1 WLR 1515.
[601] Ibid, The Orbit Valve case.

19.3 *Except as provided by Clause 19.1(a), Clause 19.1(b) and Clause 19.4, the* ***COMPANY*** *shall save, indemnify, defend and hold harmless the CONTRACTOR GROUP from and against any claim of whatsoever nature* ***arising from pollution emanating from the reservoir*** *or from the property of the COMPANY GROUP arising from, relating to or in connection with the performance or non-performance of the CONTRACT.*

19.4 *Except as provided by Clause 19.2(a) and Clause 19.2(b) the* ***CONTRACTOR*** *shall save, indemnify, defend and hold harmless the COMPANY GROUP from and against any claim of whatsoever nature* ***arising from pollution occurring on the premises of the CONTRACTOR GROUP or emanating from the property and equipment of the CONTRACTOR GROUP*** *(including but not limited to marine vessels) arising from, relating to or in connection with the performance or non-performance of the CONTRACT.*

19.5 *All exclusions and indemnities given under this Clause (save for those under Clauses 19.1(c) and 19.2(c)) and Clause 21* ***shall apply irrespective of cause and notwithstanding the negligence or breach of duty (whether statutory or otherwise) of the indemnified party or any other entity or party and shall apply irrespective of any claim in tort, under contract or otherwise at law.***

19.6 *If either party becomes aware of any incident likely to give rise to a claim under the above indemnities, it shall notify the other and both parties shall co-operate fully in Investigating the incident*

19.7 *The indemnity given by the PARTIES under this CONTRACT are full and primary, and shall apply irrespective of whether the indemnified PARTY has, or has not, insurance in place relating to any claim, losses, damages or cost in respect of the subject matter of any indemnity given under this CONTRACT.*

19.8 *EACH PARTY expressly agrees that the indemnities set out in this clause do not extent to criminal sanctions imposed upon it, arising from, relating to or in connection with the performance or non-performance of the CONTRACT.*[602]

From the above, it is evident that liability for injury, property or pollution damage is without recourse to fault, howsoever caused, and notwithstanding any breach of duty. In the UK, mutual indemnity scheme is established under LOGIC module contracts and further strengthened with by Industry Mutual Hold Harmless Agreement (IMHH). The IMHH, has as its purpose, the provision of practical and efficient means of bringing into being a set of hold harmless indemnities between parties.[603] This is achieved through the core indemnity provisions that cover personal injury, disease, sickness or death of workers known as "personnel"; loss or damage to property; and consequential loss. The relevant hold harmless section is set out below.

[602] Standard Contracts for UK Offshore Oil and Gas Industry: General Conditions of Contracts for Service On- and Off-shore, *LOGIC Edition 3*, March 2014, <https://commoditylogistics.onepeterson.com/storage/configurations/commoditylogisticsonepetersoncomaccnakijkennl/files/terms__and__conditions/uk/logic__ndash__onshore_and_offshore_services_terms__amp__conditions_.pdf > accessed 23 April 2017.

[603] Gordon (n 3) 470. The IMHH applies to the United Kingdom Continental Shelf (UKCS), with the intention of underpinning offshore hydrocarbon operation. The IMHH scheme is designed to help participants manage risks in a comprehensive manner. LOGIC, 'IMHH' <http://www.logic-oil.com/imhh> accessed 15 November, 2015.

2. Indemnity by signatories

2.1 Subject to Clause 2.3 and 2.4 each of the Signatories shall be solely responsible for and shall defend, indemnify and hold harmless the other Signatories and 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 the personnel of the indemnifying Signatory or any other member of its Group; and

(ii) loss of, recovery of, or damage to any Property of the indemnifying Signatory or any other member of its Group; and

(iii) Consequential loss suffered by the Indemnifying Signatory or any member of its Group.

2.2 The indemnity given pursuant to this Deed shall be full and primary, and shall apply irrespective of cause and notwithstanding the negligence or breach of duty (whether statutory or otherwise) of the Indemnified Party and shall apply irrespective of any claim in tort, under contract or otherwise at law. For the avoidance of doubt and to the extent permitted by law, each Signatory agrees that it shall not rely upon the provisions of any statute, treaty or convention for the purpose of avoiding or limiting its obligation to any other Signatory under Clause 2.1.

2.3 The indemnities in Clause 2.1.(i) (ii) and (ii) shall not apply and are not given either in favour or against, and shall not be enforceable either by or against, any Signatory in respect of any Claims arising out of events occurring prior to the date on which that Signatory became a Signatory (either on the date on which this Deed came into force or on the date of the Deed of Adherence which it executed , as the case may be)[604]

It is worth noting that the IMHH does not provide for or cover indemnity for pollution damage. G. Gordon notes that the industry favours indemnity for injury, death, sickness or disease of personnel; property damage or loss; and a defined class of loss called "*Consequential Loss*" but not pollution damage.[605] Again, while losses from the death of personnel, damage or loss of property and consequential loss are insurable, risk/loss arising from pollution are regarded as "*less quantifiable*", hence the likelihood to create complication to the IMHH clauses.[606]The perceived less quantifiable nature of pollution has informed the absence of pollution clauses in the IMHH.

Another vital aspect of the IMHH agreement is that it is applied between or amongst contractors but not operators and contractors.[607] However, some contractors, particularly drilling

[604] LOGIC, 'IMHH 2012 Deed' Clause 2, March 2014 < https://www.logic-oil.com/sites/default/files/documents/IMHH%202012%20Deed%20March%202014_0.pdf > accessed 20 April 2016.
[605] Gordon (n 3) 471.
[606] LOGIC, IMHH Frequently Asked Questions < http://www.imhh.com/faq.cfm > accessed 22 December 2015.
[607] Although operators give consent to it because it covers contractors working for operators in the project. This is so as the contractor to an operator would be captured under the group definition as an agent of the operator. The contracts usually state that signatories will indemnify, defend and hold each other harmless in the event of losses, damage or injury of personnel occurring.

contractors do not support the IMHH Deed as they consider the value of their drilling equipment and the number of staff on a given offshore platform to be of key concern to them.[608] Some contractors have even withdrawn their signatory from the IMHH Deed. Between 31 December 2014 and 31 December 2017, eight signatories had been withdrawn.[609] The IMHH agreement does not preclude parties from entering into a different liability scheme if they so desire.[610] The indemnities provided under the Deed are regarded as *"Full and Primary*" and they apply irrespective of cause and regardless of the negligence or breach of duty (whether statutory or in other forms) of the party to be indemnified. Its application is also without regard to any claim under the contract, in tort or at law.[611]

While the IMHH agreement exists, broad indemnity contracts between operators and contractors in the United Kingdom Continental Shelf (UKCS) capture vital aspects of an offshore hydrocarbon risk allocation. The practice in the UKCS is analogous to other jurisdictions where the operator provides indemnity for pollution damage arising from the well, occasioned by the sole or joint negligence of a drilling contractor. Usually, the drilling contractor exercises actual or constructive control in well drilling operations while the operator is in charge of the work programme.[612]

A careful look at the knock for knock principle in the UKCS indicates that the indemnity clauses cover the death of personnel, injury, damage to property (hired, owned or leased), and consequential loss. Parties sometimes agree not to apply indemnification in the event of wilful misconduct or gross negligence. A party at fault can still claim indemnity irrespective of the involvement in the damage. The party with the contractual responsibility is left to bear the burden.

6.1.3 Indemnification under the UK Regime: A brief analysis

An examination of the model contract in the UK reveals that the model contracts distributes the liabilities that arise from offshore drilling operation of hydrocarbon irrespective of the fault

[608] Gordon (n 3) 476. Some drilling contractors in the UKCS hold the view that other contractors on the platform have small number of staff and less valuable equipment compared to a drilling contractor. Hence their not been adherents to the Deed or signatories to the IMHH Deed.
[609] LOGIC, 'Signatory Withdrawals – IMHH 2012 Scheme' LOGIC 2018 < https://www.logic-oil.com/imhh/signatory-withdrawals-imhh-2012-scheme-0 > accessed 20 March 2018. This withdrawal may be as a result of the fact that some contractors would not like to bear the liability of another party who was negligent. Under the IMHH scheme, a signatory is not held liable for his misconduct, howsoever caused. This could de-incentivise the exercise of care during petroleum operations.
[610] Gordon (n 3) 472.
[611] IMHH Deed, cl 2.2.
[612] With respect to drilling operations, the role of the operator may be regarded as administrative and merely supervisory especially as the drilling contractor is an independent contractor under a contract for service.

of a contracting party. Although gross negligence is not a term of art in the UK, there is no prohibition of its use in drilling contracts. The absence of statutory prohibition of the use of mutual indemnity as a cover against liability for gross negligence could result in complacency and a negative incentive to prevent harm against the public since the method of risk allocation creates room for a party not to exercise care. The model form does not allocate risk using the proportionality element in burden distribution. Risks are allocated based on business benefit and ability to bear the risk; but not behind an imaginary veil of ignorance that could facilitate public interest and fairness from a Rawlsian point of understanding. This could encourage moral hazard and exposing the public to harm arising from the lack of care. The absence of liability induces a want of care as no form of liability attaches to grossly negligent actions. Where the obligation arising from gross negligence is on a party at fault, the incentive to exercise care would arise.

Again, the practice of risk allocation in the UK is not compatible with public policy consideration as it enables a party to use mutual indemnity as a cover against liability for severely wrongful oilfield practices. Public policy would like to discourage or deter defaulters to avert the negative impact of their activities on society. To allow their severely wrongful conduct to go without liability is to encourage practices that could harm society. In summary, the model form encourages moral hazard as there is no obligation in the risk allocation practice to take care for risk not allocated to a party. From the analysis done so far, it is evident that the drilling contractor lacks the incentive to take care, thus taking away the deterrent effect of having a skin-in-the-game in the event of a downside, when it is causally connected to the accident.

6.2 The United States of America

The US is a dominant player in the hydrocarbon industry with huge reserves in the Gulf of Mexico (GoM). Hydrocarbon rights in the US offshore waters are either federal or state-owned (depending on the distance from the shore) and leased to oil companies. Unlike the situation in the UK, the US has different laws applicable in different states and indemnification is restricted in some of the states.[613] This restriction exists as some of these states have, through legislation,

[613] For instance, Anti indemnity Act exist in Texas and Louisiana. It precludes a party from benefiting from a wrong/negligence it committed.

restricted the application of indemnity for negligent acts, on the grounds of public policy.[614] However, to be more active, national regulatory control is vital, especially for grossly negligent behaviour.

As a developed player in the hydrocarbon industry, the US has used the Concession system for many years. Although private ownership of hydrocarbon rights[615] influenced the regime, it was also a major driving force in the development of the hydrocarbon law in the US and formed the necessary foundation of business concepts in its hydrocarbon industry. Under international law, however, hydrocarbon rights are vested in the government.[616] Countries now exercise permanent sovereignty over their natural resources, exercised for the interest of their people.[617]

Most of the petroleum activities carried out in the US, take place in offshore waters and are subject to federal laws with limited regulatory involvement on the part states. A look at the Oil Pollution Act, 1990 and the Clean Water Act of the US becomes necessary for a better understanding of risk allocation in offshore drilling activities.

6.2.1 The Oil Pollution Act, 1990 (OPA) and the Clean Water Act (CWA)

6.2.1.1 The OPA

The OPA is the principal statute that regulates hydrocarbon pollution liability and compensation in the US offshore waters. It was the Congress' response to the spills that happened in the 1980s, and especially, the Exxon Valdez spill of 1989. Its scope extends to navigable waters, adjoining shorelines and places where oil may be discharged. The OPA acted as a modifier or displacer of state and maritime laws. To a large extent, it is federal tort law, as it integrates a mixture of tort concepts from the Anglo-American legal jurisprudence.[618] The OPA imposes strict liability on a responsible party for oil pollution but allows states to legislate on supplemental liability for damages caused by oil pollution.[619]

Under the OPA, the general framework for the practice of risk allocation through indemnities is not provided, but the OPA acknowledges its use in contracts. Sec.1010 of the OPA provides

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[614] The ground for the restriction is to avoid a situation where a party with a strong bargaining power passes some liabilities to the other with a weak bargaining power. Our focus here is how public policy seek to prevent a party from using mutual indemnity as a shield for gross negligence during oilfield activities.
[615] "The rule of capture" as practiced then in the U.S
[616] Herbert W Sullivan Jr, 'The Anatomy of an International Exploration Contract' (1994) 41 Annual Institute on Mineral Law 108.
[617] Resolution No. 1803 (XVII) adopted by the United Nations General Assembly in 1962. See further discussion in Duval (n 554) 21-23.
[618] Martin (n 205) 960.
[619] Foley (n 170) 516.

that the Act does not prohibit any agreement that holds harmless or indemnifies another party for liability arising under the Act. It also states that where liability is imposed, it cannot be transferred from a responsible party to another party who does not have the responsibility. It means that a responsible party under the Act cannot transfer his statutory liability to another party. This study submits that is submitted that the rationale here is for the government to be able to hold a party legally responsible or proceed against the party. However, parties could contract to limit, hold harmless or reduce the burden of liability. A party is not also precluded from taking action against another who may be liable for the harm/damage under any agreement between them[620].

6.2.1.2 The CWA

The Federal Water Pollution Control Act CWA is also a federal statutory scheme which addresses, among other things, oil pollution.[621] It regulates the release of pollutants into the U.S waters.[622] The CWA provides for both discretionary and mandatory penalties against a responsible party who has discharged hazardous substance into navigable waters.[623] Under the CWA, sentencing guidelines and fines could be applied for criminal penalties, while a per-barrel or per-day fine determines the civil penalty. These penalties are assessed by the Environmental Protection Agency or the US Coast Guard.[624] The Act makes no specific reference to indemnification or risk allocation, but its provisions could be invoked, and consequently penalties awarded when an oil spill pollutes the navigable waters of the US.

Although the OPA and the CWA leave us with little or no detail about the practice of indemnification, the oil industry has developed model contracts which have been used for the allocation of risks in the offshore hydrocarbon industry. Notable among these are the AIPN well services model forms and the IADC model forms.[625] Accordingly, a look at the model contracts, particularly that of the AIPN, would provide us a proper understanding of indemnities and risk allocation approaches.

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[620] See 33 U.S.C. 2710, as amended through P.L. 108–201, February 24, 2004.
[621] See 33 U.S.C. §§ 1251-1387.
[622] Cressinda C D Schlag, 'Indemnity for Environmental Damage: Methods for Structuring an Enforceable Indemnification Agreement for Environmental Claims and Liabilities' (2015) 36 Energy and Mineral Law Institute 340.
[623] 33 U.S.C. § 1321(b)(3), (5), (7)
[624] Foley (170) 518.
[625] The IADC model form contracts are mostly used in land drilling, but it serves as a reference source in the negotiation and drafting of offshore drilling contracts by parties. The drilling model form contract was developed by the association of drillers in the U.S. Moomjian (n 140) 19.

6.2.2 Model contract for risk allocation in the US

This study acknowledges the existence of other company standard form contracts but would confine itself to the widely used contract forms such as the AIPN and IADC model forms. The AIPN model form has assumed a place of pride in the US offshore drilling contract. It is used to allocate risk and to determine the rights and liabilities (benefits and burden) of parties in their contract**.** It provides a platform for negotiation, amendment, adjustments, and drafting of offshore drilling contracts. Although other pertinent sections of the AIPN Well Services model form set out in detail the nature and extent of party's rights and obligation in a drilling contract, Article 13 of the 2002 AIPN Well Services form addresses risk liabilities and indemnification for well services.

ARTICLE 13 LIABILITIES AND INDEMNIFICATION - WELL SERVICES

13.1 General
To avoid the time and expense of protracted litigation between the Parties and to allow each Party to arrange for insurance or self-insurance as deemed appropriate to address the relevant risks, the responsibility for certain Claims shall be allocated between the Parties in accordance with the further provisions of this Article 13.

13.1.1 Contractor's indemnity of Company Group. *Regardless of Cause, Contractor Shall Be Liable For And Indemnify Company Group from Claims arising out of personal injury, illness, death, or property loss or damage suffered by any member of Contractor Group.*

13.1.2 Rented or consigned property. *Property that has been rented to or consigned to Company by Contractor and (1) is specifically identified as part of Schedule 2 or, (2) is not being operated or maintained by Contractor Group shall be considered property of Company for purposes of this Article 13.*
Alternative 1
13.1.3 Company's indemnity of Contractor Group. *Regardless of Cause, Company Shall Be Liable For And Indemnify Contractor Group from Claims arising out of personal injury, illness, death, or property loss or damage suffered by Company, Company's Affiliates, Joint Interest Owners and Company's Invitees, and its and their shareholders, officers, directors, employees, agents, consultants, servants and insurers of all of the foregoing.*
Alternative 2
13.1.3 Company's indemnity of Contractor Group. *Regardless of Cause, Company Shall Be Liable For And Indemnify Contractor Group from Claims arising out of personal injury, illness, death, or property loss or damage suffered by any member of Company Group.*

13.2 Special Risk and Indemnity Provisions
To the extent of conflict, the following indemnity provisions control over the provisions of Article 13.1.

13.2.1 Down Hole Equipment and Fishing

13.2.1.1 *Regardless of Cause, Company shall perform all fishing to recover Down Hole equipment at Company's expense.*

13.2.1.2 *Regardless of Cause, Company, at Company's sole option, shall either reimburse Contractor as provided in Article 13.2.4.2 or for the costs of repair of any equipment of any member of Contractor Group that is lost or damaged Down Hole, whichever is less.*

Optional

13.2.2 Surface Equipment

Except to the extent of fair wear and tear, if Contractor can demonstrate that any equipment (other than that located Down Hole) of any member of Contractor Group has been subject to abnormal damage (meaning damage which could not be reasonably expected) resulting directly from corrosion, erosion or abrasion caused by the nature of the well effluent, Contractor shall be reimbursed as provided in Article 13.2.4.2 or for the cost of repair, whichever is less, except to the extent that such damage is caused by the Negligence of any member of Contractor Group.

13.2.5 Wild Well

Alternative 1

Regardless of Cause, Company Shall Be Liable For And Indemnify Contractor Group from Claims arising from a Work Site fire or explosion or blowout, cratering or any uncontrolled well condition, including, without limitation, the cost of controlling a wild well, underground or above the surface, and the removal of debris, save and except Claims arising out of personal injury, illness, death, or property loss or damage suffered by any member of Contractor Group.

Optional (to Alternative 1)

In this regard, Company Shall Be Liable For And Indemnify Contractor Group for such Claims arising out of the Gross Negligence of any member of Contractor Group in excess of _____ per occurrence.

Alternative 2

Regardless of Cause, Company Shall Be Liable For And Indemnify Contractor Group for the reasonable costs of controlling a wild well, underground or above the surface, and the removal of debris.

13.2.10 Pollution

13.2.10.1 *Regardless of Cause, Company Shall Be Liable For And Indemnify Contractor Group from Claims of pollution arising out of spills emanating from the equipment of any member of Company Group provided such equipment is in the care, custody and control of any member of Company Group.*

13.2.10.2 *Regardless of Cause, Contractor Shall Be Liable For And Indemnify Company Group from Claims of pollution arising out of spills emanating from the equipment of any member of Contractor Group provided such equipment is in the care, custody and control of any member of Contractor Group.*

13.2.10.3 *Regardless of Cause, Company Shall Be Liable For And Indemnify Contractor Group from Claims of pollution arising out of spills of material provided by any member of Contractor Group to Company for use by any member of Company Group once the material is delivered to the location and during transit on conveyance arranged by any member of Company Group.*

13.2.10.4 *Regardless of Cause, Contractor Shall Be Liable For And Indemnify Company Group from Claims of pollution arising out of spills of material to be provided by any member of Contractor Group to any member of Company Group during transit on conveyance arranged by any member of Contractor Group.*

Alternative 1
13.2.10.5 *Notwithstanding this Article 13.2.10.1, Regardless of Cause (including Gross Negligence), Company Shall Be Liable For And Indemnify Contractor Group from Claims of pollution arising out of a blowout, seepage of sub-surface origin or uncontrolled well flow.*

Alternative 2
13.2.10.5 *Notwithstanding Article 13.2.10.1, Regardless of Cause, (including Gross Negligence) Company Shall Be Liable For And Indemnify Contractor Group from Claims of pollution arising out of a blowout, seepage of sub-surface origin or uncontrolled well flow, unless due to the Gross Negligence of any member of Contractor Group up to a cap of _____ and Company Shall Be Liable For And Indemnify Contractor Group for such Claims to the extent in excess of such amount.*

Alternative 3
13.2.10.5 *Notwithstanding Article 13.2.10.1, Regardless of Cause, except to the extent of the Negligence of any member of Contractor Group up to a cap of _____, Company Shall Be Liable For And Indemnify Contractor Group from Claims of pollution arising out of a blowout, seepage of sub-surface origin or uncontrolled well flow.*[626]

Article. 13 clearly explains the purpose of the allocation of risk between parties. It reiterates the traditional mutual indemnity clause, but some carve-outs or special circumstances are also included. An instance is that, while parties may be indemnified for death, personal injury and damage or loss to property notwithstanding their cause, this may not apply if the cause has been the result of gross negligence of the party at fault. It must be noted here that parties may agree otherwise in their contract, subject to the relevant anti-indemnity statute. Again, the term "company group" in a mutual indemnity contract, means contractors working for the company. This is different from the LOGIC version that excludes other contractors working for the company.[627]

Under Article 13.2.10 of the AIPN model form, an operator shall be held liable, irrespective of cause and shall indemnify contractor/contractor group from pollution claims arising from an

[626] AIPN Well Services Model Form, 2002, Article 13.
[627] Egbochue (n 52) 11.

oil spill that emanates from operator's equipment. Such equipment must be under the custody, control and care of the operator. The same situation applies to the contractor. It must be stated that a contractor is usually made to bear the cost of claims or losses arising from its equipment, which always results in surface pollution during offshore drilling. The same position applies to an operator who bears the liabilities arising from well pollution since the operator is in control of the well programme, although he is not the owner of the drilling equipment.

An interesting aspect of Art. 13 of the AIPN well service model is the alternative clauses provided for drafting considerations. Alternative 1 includes gross negligence in the '*no liability, howsoever caused'* category under which an indemnitee can still be indemnified. However, Alternative 2 carves out gross negligence as grounds that will trigger a stated monetary liability before operator indemnifies contractor where the amount exceeds the cap. Alternative 3 carves out negligence up to a stated financial cap.

The main provision of Art. 13.2.10 is not compatible with public policy and does not promote the proportionality element in distributive justice. It is so as it does not give the party at fault an obligation to bear responsibility. However, alternatives 2 and 3 align with public policy and distributive justice, as they provide for liability subject to a cap. The alternatives provide room for a party to bear responsibility for his wrongful conduct, even when such risk was not allocated to him. This alternative, if adopted, could incentivise good oilfield practice that could prevent harm and discourage moral hazard. The alternative also shares liability to a party at fault in accordance with the benefit derived from the risky activity. This is so as it establishes a cap on liability and not the entire well pollution liability. The cap on liability conforms to the proportionality element in distributive justice as canvassed and the Rawlsian allocation of risk behind a veil of ignorance.

The alternatives present a modified mutual indemnification agreement and put measures to deter a party from seriously wrongful conduct that could lead to bad oilfield practice and cause injury to others. In line with public policy, liability also attaches to the alternative, albeit, in conformity with benefit reaped in the activity. This study argues that the philosophical underpinning of the pollution damage alternatives is the distributive outcome, which will be triggered by the action of the party at fault. It becomes a harm-deterring, moral hazard discouraging, and a harm-preventing measure to protect society and the other contracting party from conducts that are likely to affect the interest of the society.

As noted earlier, some states have prohibited the application of mutual indemnity agreements. What is the nature and extent of this restriction?

6.2.3 Which law applies to parties to an agreement

Where hydrocarbon agreements are governed by the US law, the primary consideration for the parties is to determine which law should govern the indemnity agreement. This issue is of fundamental importance as it affects the application, enforcement and voidability of the indemnity agreement. It is so as both codified and uncodified laws exist in the US, a federal state, where federal and state laws co-exist to regulate hydrocarbon activities. This legal system in the US follows the change and development of specific common law positions received from the English legal system. It has been noted that common law did not develop the same way in the US, hence the difference in state application.[628]

The applicable law may include the general maritime law of US, the Outer Continental Shelf Lands Act (OCSLA), or State law. The application of these instruments is determined by the event that has arisen or the risk that has been triggered in the agreement. The important feature of the US regime is the absence of a single system specifically tailored to the offshore hydrocarbon industry in the US waters. This complicates the application of indemnity provision. The court also noted the absence of consistency in the regime governing offshore hydrocarbon operations in ***Walsh v. Seagull Energy Corporation***, wherein the court posited that "since the oil industry went offshore, the legal system has struggled to produce a body of injury law that is rational, fair, internally consistent, and acceptably productive of safety incentives. The result has been chaos".[629]

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[628] Graham Hughes, 'Common Law Systems' in Alan B Morrison (ed), *Fundamentals of American Law* (Oxford University Press 1996)13. Hughes noted this position when he stated that "*Each state has a large measure of sovereignty, subject to the national application of federal statutes and the requirements imposed nationally by the United States Constitution. Thus it has been inevitable that the common law has not developed in exactly the same way in different states. At one time or another a state may have a judiciary and a political climate that is relatively liberal or relatively conservative when compared with the majority of states. The economic and social interest to which the judiciary must pay attention in a may be very different from those that obtain in a highly industrialized state with a very large urban population. Thus, although a single common law was originally exported from England to America, a number of factors has led to the development of different common law rules in different states, notably in such areas as torts and criminal law".*

[629] 836 F. Supp. 411 – Dist. Court, S.D Texas, 1993.

6.2.3.1 The US general maritime law

Indemnity clauses are enforceable under the US maritime law,[630] even where such agreement protects a party from its negligence; so long as the provision is well drafted, unambiguous, and clearly states the intention of the parties to exclude the said liability.[631] In cases of concurrent negligence by parties, indemnification still applies.[632] It may however not be applicable where a statutory provision precludes it or where a federal court, applying maritime law, holds that the indemnity agreement is contrary to public policy. While some courts[633] have held that indemnity clauses that protect personal negligence will be unenforceable, the recent judgement in the Macondo litigation posits that the pollution indemnity clause in the parties drilling contract, governed by US maritime law, is applicable, gross negligence notwithstanding.[634]

However, in the BP Macondo litigation, in the cross-motion summary judgement of January 2012, the court advanced that public policy consideration would not allow indemnification where fraud is involved. It is because fraud involves wilful misconduct, which exceeds gross negligence.[635] Albeit, where the contract is maritime by its legal nature, federal maritime law will apply, mainly when the subject matter centres on traditional maritime activities where the admiralty jurisdiction of the court can be invoked.[636]

6.2.3.2 The Outer Continental Shelf Land Act

The Outer Continental Shelf Land Act (OCSLA) is another law that may have a direct bearing on indemnity agreements that protect personal negligence. The Act was enacted in 1953 to encourage hydrocarbon activities in the Outer Continental Shelf (OCS). It defines the OCS to

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[630] Angelina Cas. Co. v. Exxon Corp., U.S.A., Inc. 876 F.2d 40, 49 [5th Cir. 1989].
[631] LeRoy Lambert, 'Knock-for-Knock Contracts are Enforceable in the U.S',(Standard Bulletin: Offshore Special Edition, Nov. 2011) <http://www.standard-club.com/media/1557929/knock-for-knock-contracts-are-enforceable-in-the-us.pdf > accessed 27 February, 2016. See also Young v. Kilroy Oil Co. of Texas, Inc53, 673 S.W.2d 236, 244 (Tex. App.--Houston [1st Dist.] 1984), where the court stated that federal law on indemnity provides that "*[a] contractual provision should not be construed to permit an indemnitee to recover for his own negligence unless the court is firmly convinced that such an interpretation reflects the intentions of the parties…".*
[632] Janet L Yates, 'Contractual Risk Management – Use of Insurance' <http://www.gordonarata.com/720DE/assets/files/lawarticles/LANIER6.pdf > accessed 27 February 2016.
[633]Energy XXI, GOM, LLC v. New Tech Engineering, L.P., 2011 U.S. Dist. LEXIS 41223 (US DC Southern District of Texas). It must be noted that the court in this case is a District court in Southern Texas while the other court in the Macondo case is also a District court in Eastern District of Louisiana. Although both courts are courts of coordinate jurisdiction, the later decision of the court in the Macondo litigation is recent and may assumes the position on the subject.
[634] In Re: Oil Spill By The Oil Rig "Deepwater Horizon" In The Gulf Of Mexico, On April 20, 2010, US DC Eastern District Of Louisiana.
[635] Ibid 5-6. The court noted that a mere failure to perform an obligation under contract is not itself fraud, but a breach of contract.
[636] Hunt Oil, 754 F.2d 1223 [5th Cir. 1985].

include three geographical miles offshore from a given state of all submerged lands lying outside of a line under the US jurisdiction.[637] The Act intends to make federal law, excluding maritime law,[638] applicable to the OCS, while the laws of states adjacent to the OCS will apply as surrogate to federal laws to the extent they are not inconsistent with federal laws and regulations.[639]

Accordingly, the laws of the state adjacent to the OCS are adopted as surrogate federal law, giving room for these state laws to govern and regulate offshore contracts on the OCS. A complicated situation arises where federal law is applied in a particular situation by OCSLA but incorporates state law in other situations. Accordingly, scholars have noted that the enforcement of offshore indemnity claims in the OCS is challenging.[640] It is worthy to note that where there exists a choice of law to the contrary, the law applicable in the neighbouring state applies; as it is the choice of law mandated by the Congress for operations in the OCS.[641]

For practices under the fifth circuit, offshore Texas and Louisiana will be the OCS situs for the Gulf of Mexico. Hence these states' laws will be applicable for offshore hydrocarbon operations as far as indemnification is concerned. Suffice it to state that Texas and Louisiana had passed anti-indemnity statutes which precludes a person from benefiting from his wrong. The application of state laws to the OCS is restricted to agreements that are non-maritime.[642] Under a maritime contract, parties are however free to enforce knock-for-knock indemnities against their negligence. The application of the OCSLA to indemnity provisions can be challenging to the court and parties. This position was stated when the Court of Appeal, Fifth Circuit examined the scope of Section 1333 (a) (1) of the OCSLA in ***Demette v. Falcon Drilling Co. Inc***.[643]

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[637] Outer Continental Shelf Land Act (n 137), s.1331; Bureau of Ocean Energy Management, 'OCS Land Act History' < http://www.boem.gov/OCS-Lands-Act-History/ > accessed 25 February 2016.

[638] The Supreme Court advanced that Congress viewed maritime law as inappropriate to OCSLA structures, and admiralty jurisdiction as not extending to accidents in areas covered by OCSLA; *Herb's Welding, Inc. v. Gray,* 470 U.S. 421-22, 1985 AMC 1700, 1705 [1985].

[639] OCSLA (N 137) s.1333 (a) (1) and (2) (a).

[640] Julia M Adams and Karen K Milhollin, 'Indemnity on the Outer Continental Shelf - A Practical Primer' (2002) 27 Tulane Maritime Law Journal 43.

[641] Union Texas Petroleum Corporation v. PLT Engineering Inc., 895 F.2d 1043, Court of Appeal (5th Cir.1990).

[642] Distinguishing between maritime and non-maritime contract have been a source of challenge to the courts. See See: *Grand Isle Shipyard, Inc. v. Seacor Marine LLC*, 589 F.3d 778 [5th Cir. 2009] wherein it was held that LOIA invalidated an indemnity provision in a contract providing for work on a fixed platform in the Gulf of Mexico because the contract was non-maritime, and *Hoda v. Rowan Companies, Inc.,* 419 F.3d 379 [5th Cir. 2005] where it was held that an indemnity provision was valid in a contract governed by maritime law.

[643] 280 F.3d 492 [5th Cir. 2002]. The court stated that "*I regret to say that our Circuit case law on "what is a vessel" and "what is a maritime contract" and what is "maritime employment" have taken on a Humpty-Dumpty approach-they are whatever a particular panel says they are. That's a tragic circumstance because it destroys*

6.2.3.3 State law and indemnification under the US regime

The desire to protect allegedly weak parties from contracts which may unfairly shift liability for damages arising from offshore operations prompted some states in the US[644] to pass anti-indemnity statutes. These state laws prohibit the shifting of losses occasioned by the negligence, gross negligence, or fault of one party to another through contract. About forty-one states had passed laws which prohibit construction contracts that provide that a subcontractor would indemnify another party for the party's negligence.[645] Notable among these states are the anti-indemnity statutes of Texas and Louisiana.

Although both states had passed anti-indemnity statutes, some marked differences exist between them. In Louisiana, contractual indemnity is outrightly void, while in Texas, contractual indemnity is permissible where it is supported with insurance and meets specific statutory requirements. Public policy considerations have been the focal point of these anti-indemnity statutes. [646] Some courts consider these statutes as the embodiment of public policy that would override the provisions of drilling contracts.[647] Offshore hydrocarbon operations are developed adequately in Texas and Louisiana, with their anti-indemnity statutes exerting significant influence on drilling contracts in the OCS and U.S waters; these states have taken steps to bring the statutes to business reality in offshore operations.

6.2.3.3.1 Indemnification in Texas

Texas has played an essential role since the start of the US offshore hydrocarbon activities, while the latter occupies the central position in the Texas economy. Little wonder knock-for-knock provisions plays important role in the legal regime governing offshore petroleum operations in Texas, with the state authorities implementing an anti-indemnity statute, and it's

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uniformity and predictability of the law; and the only ones who benefit from unpredictability and confusion are lawyers".

[644] For instance, Texas and Louisiana has passed anti-indemnity laws.

[645] Foundation of the American Subcontractors Association, Inc., 'Anti-Indemnity Statutes in the 50 States' 2013, < http://www.keglerbrown.com/content/uploads/2013/10/ASA-Anti-Indemnity-Chart-2013.pdf > accessed 21 March 2016.

[646]These states anti-indemnity statutes follows public policy theory that anti-indemnity statutes will preclude parties with greater bargaining opportunity from delegating their obligations to a weak party via indemnity provisions/clauses.

[647] The court may however hold a contrary position if public policy would not be contravened. *Brashar v. Mobil* Oil Corp., 626 F.Supp. 434, 437 [D.N.M. 1984] where the court compared the outcome of the enforceability of an indemnity clause under New Mexico and Texas anti-indemnity statutes and concluded that the application of Texas law would not conflict with New Mexico public policy. See *Regan v. McGee Drilling Corp*., 993 P.2d 687 [N.M. Ct. App. 1997] where the court applied Texas law which upheld the contractual indemnity clause which was invalid under New Mexico law, did not violate the public policy of New Mexico.

Supreme Court handing down judgements. Where the governing law in the parties' contract is Texas law, the knock for knock provisions must conform to the anti-indemnity statute,[648] and the express negligence rule, for it to be enforceable.[649]

6.2.3.3.1.1 Texas express negligence rule

As earlier stated, the enforceability of an indemnity provision in the law of Texas depends in part, on the *express negligence* test. The express negligence rule provides that parties must expressly state their intention in their contract. The contract must clearly state that irrespective of the sole or concurrent negligence of the indemnitee, the indemnitor will indemnify the indemnitee. Otherwise, the indemnity provision in the contract will be void.[650] The Supreme Court of Texas stated that a provision, which aims at indemnifying the indemnitee from the consequences of his negligence must be expressed in specific terms, within the four corners of the contract.[651]

The express negligence rule is a doctrine of common law that applies when construing the validity of indemnity agreements. It is worth noting that the law of a state is made up of statutory and common law; hence, the occasion by some jurisdiction to place common law limitations on the enforceability of indemnity agreements.[652] Another common law doctrine for interpreting the enforceability of indemnity provision is the "*clear and unequivocal test*" which is applicable in other jurisdictions. Under this test, the specific mention of the sole or concurrent negligence of the indemnitee is not required so long as the intention of the parties indicates their resolve to include all wrongs arising from their activity.[653]

This reasoning was followed by ***Dresser Industries Inc. v. Page Petroleum Inc.***[654] The court held that where a provision in a contract requires an indemnitee to be protected from its negligence, the threshold inquiry when construing such provision is the fair notice requirement of conspicuousness. Through it, a reasonable man's attention could be attracted on the face of the contract. The decisions had encouraged parties, whose contract is governed by Texas law,

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[648] This is the Texas Oilfield Anti-indemnity Act. (TOAIA)
[649]Tex. Civ. Prac. & Rem. Code § 127.001; Tracy A Saxe and C B Keniry, 'Indemnity, AI, and the BP Oil Spill' (*ABA ICLC Conference*, 2014) <http://www.americanbar.org/content/dam/aba/administrative/litigation/materials/2014_inscle_materials/written_materials/b15_1_indemnity_ai_and_the_bp_oil_spill.authcheckdam.pdf > accessed 24 March 2016.
[650] Ibid.
[651] Ethyl Corp. v. Daniel Constr. Co., 725 S.W.2d 705, 708 [Tex. 1987].
[652] Saxe and Keniry (n 649) 525.
[653] Metropolitan Paving Co. v. Gordon Herkenhoff & Assoc. lnc., 341 P.2d 460 [N.M.1959].
[654] 853 S. W.2d 505, 511 [Tex. 1993]; see also Atlantic Richfield Co. v. Petroleum Personnel Inc., 768 S. W.2d, 724, 726 [Tex. 1989].

to provide for risk allocation expressly on and to determine the nature and extent of the indemnity provisions in the contract. The contract must be clear for all to understand and emphasise, in unequivocal terms, the intentions of the parties.[655]

6.2.3.3.1.2 The anti-indemnity statute of Texas

This statute is often called the Texas Oilfield Anti-indemnity Act (TOAIA). It scope includes hydrocarbon wells, as well as water and mineral wells.[656] TOAIA renders void any contractual provision which is designed to indemnify a party against liability for damage or loss occasioned by or to result from the indemnitee's concurrent or sole negligence, his employee, agent or any person responsible to him.[657] A service or drilling contract could be rendered void where the law is not adequately adhered to.

In addition to the express negligence doctrine, the TOAIA must also be observed for the indemnity agreement to be enforceable in Texas. Introduced in 1973, the Act aims to preclude operators from demanding contractors to indemnify them for their negligence and that of third parties. Passing the negligence of a party to another was adjudged unfair and stress-inducing on the contractual chain.[658] Section 127.003 of the TOAIA provides thus:

> *"(a) Except as otherwise provided by this chapter, a covenant, promise, agreement, or understanding contained in, collateral to, or affecting an agreement pertaining to a well for oil, gas, or water or to a mine for a mineral is void if it purports to indemnify a person against loss or liability for damage that:*
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> *(1) is caused by or results from the sole or concurrent negligence of the indemnitee, his agent or employee, or an individual contractor directly responsible to the indemnitee; and*

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[655] Moomjian (n 199). Moomjian note that the talismanic words to ensure enforceability should be drafted thus "*It is the intent of the parties hereto that, where responsibility or liability is assumed by either party or where either of the parties agrees to release or indemnify the other party in respect of any claim, demand or cause of action, unless it otherwise is expressly stated, such release, assumption of liability and/or indemnification shall apply notwithstanding the gross, sole, concurrent, active or passive negligence of any party hereto or any person, firm, or corporation for which such party is responsible (whether or not such negligence related to a pre-existing condition or defect), any breach of warranty or representation, unseaworthiness of any rig or vessel owned or hired by either party, or any other legal theory (including tort, strict or product liability) which otherwise may be applicable*."

[656] Tex. Civ. Prac. & Rem. Code § 127.001.

[657] Ibid § 127.003.

[658] Tim Haidar, 'The Texas Anti-indemnity Law – What Does it Mean for Your Business?' (Oil and Gas IQ, 3 December 2012) <http://www.oilandgasiq.com/legal-and-regulatory/articles/the-texas-anti-indemnity-law-what-does-it-mean-for > accessed 25 March, 2016.

(2) arises from: (A) personal injury or death; (B) property injury; or (C) any other loss, damage, or expense that arises from personal injury, death, or property injury."

The scope of the Act is limited to services applicable to hydrocarbon wells, water or mine for mineral wells. However, these services involve a wide range of activities, and the Supreme Court of Texas is yet to define what well and mine services require. However, the Court of Appeal in Texas has defined well and mine services by requiring a link-bridge between the indemnity agreement and the well or mine service. The court of Appeal in ***Transworld Drilling Co. v. Levingston Shipbuilding Co.***[659] affirmed this position when it held that the TOAIA would be inapplicable in an agreement to repair an offshore drilling rig that was performed in a shipyard. It is worth noting that where the indemnity agreement does not purport to indemnify a party for its negligence, the statute will be inapplicable even if the services deal with wells or mineral mines. Accordingly, contracts relating to or dealing with transportation, purchasing, fixed facilities, Joint Operating Agreement, are not covered by the TOAIA as they are not well-related.

Although the statute precludes the indemnitee from receiving indemnification for its sole or concurrent negligence, an exception exists to the effect that if the parties agree in writing that the indemnitor will procure liability insurance to support the indemnity agreement, the indemnity will be enforceable.[660] This is, however, subject to some conditions.[661] The purchase of insurance for the benefit of another party as indemnitee makes mutual indemnity allowable. It is worthy of note a recent law[662] passed in Texas, which voids clauses in construction contracts that require a party to a contract to indemnify another party for claims occasioned by the fault or negligence of the indemnitee or a third party for which the indemnitee supervises or has control over. While Texas presents an opportunity to enforce indemnity agreements, the practice in Louisiana offers a different situation.

6.2.3.3.1.3 Indemnification in Louisiana

The law in Louisiana follows the same general pattern for the application of indemnity agreements. The general rule is that for an indemnity clause to be enforceable, parties must clearly state so in their contract.[663] The clarity of intention is a less rigorous test than the Texas

[659] 693 S. W.2d 19, 23 [Tex. Ct App. 1985].
[660] Tex. Civ. Prac. & Rem. Code § 127.005.
[661] Ibid s. 127.005.
[662] The Texas Anti-Indemnity Act, Tex Ins. Code § 151.001 (Jan. 1, 2012). See particularly Tex Ins. Code § 151.002.
[663] Adam and Milhollin, (n 640) 82-88.

express negligence rule. Although the use of an express reference to negligence in the contract of the parties may not be required, a strict interpretation is essential for indemnity provisions in order to deduce the intention of the parties.[664] However, due to public policy considerations, the Louisiana Oilfield Anti-Indemnity Act (LOAIA) has put some restrictions on the enforcement of an indemnity agreement by a party who was negligent.

The adoption of the LOAIA in 1981 was based on the consideration that unconscionable were bargains foisted on parties through the use of indemnity provisions in drilling-related agreements.[665] The Louisiana Supreme Court advanced this view point in ***Fontenont v. Chevron U.S.A Inc***.[666] wherein it observed that the unequal bargaining power of parties and the need to avoid adhesion in contracts gave rise to the LOAIA. LOAIA proscribes any clause in an agreement that shields or indemnifies an "indemnitee against loss or liability for damages arising out of or resulting from death or bodily injury to persons, which is caused by or results from the sole or concurrent negligence or fault (strict liability) of the indemnitee, or an agent, employee, or an independent contractor who is directly responsible to the indemnitee".[667] Any agreement, as used in this context relates to contracts governing exploration, development, or transportation of hydrocarbons and minerals.[668]

It is worth noting that unlike the Texas Anti-indemnity Statute, the LOIA applies to death and personal injury only but excludes property damage and economic losses. Again, the LOIA proscribes reciprocal indemnification clauses when the latter concern death or bodily injury, even when the obligation is mutual and founded on adequate insurance. This study posits that the scope of the statute is not completely clear as this issue is still subject to litigation; the language of the statute leaves unanswered the question of whether any particular indemnity agreement is *"collateral to"* or *"affects"* an agreement which *"pertains to"* a well or the drilling for minerals[669].

After looking at the intent and history of the LOIA, the Fifth Circuit came to the conclusion that the Louisiana statute and the Texas statute differ. The Texas Statute defines agreements "pertaining to a well" as requiring the contractor to render "well or mine services". LOIA, on

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[664] Yates (n 632).
[665] Jay Garner, 'The Louisiana Oilfield Indemnity Act' < https://www.hightable.com/legal-issues/insight/thelouisiana-oilfield-indemnity-act-49810 > accessed 20 March 2016.
[666] 676 So.2d 557, 563 [La.1996].
[667] La R.S. 9:2780(B).
[668] Ibid s. 2780(c).
[669] The court in *Oliver Broussard v. Conoco, Inc. v. SHRM Catering, Inc.,* 959 F.2d 42 [1993 A.M.C. 2404] analysed this issue and provided a direction for future application as it affects the LOIA.

the other hand, provides that any agreement concerning oil and gas operations is an agreement "pertaining to a well". On a more general note, the courts in Louisiana, Texas, Wyoming, and New Mexico apply their Oilfield Anti-Indemnity Acts to agreements which have a little connection with the operation, maintenance or repair of a separate hydrocarbon or mineral well, but not to agreements for general oilfield work.[670]

Similarly, the LOIA proscribes insurance protection, contractual provisions, subrogation waivers, and additional insured validations that would negate the intent of the LOIA.[671] This position was upheld by the Court of Appeal of the Fifth Circuit in the U.S when it held that Section 2780 G of the LOIA means that the requirement of an additional insured clause in a contract is unenforceable.[672] However, the Supreme Court of Louisiana in ***Fontenot v. Chevron USA***[673] posited that the said section 2780 G would be enforceable for waivers of subrogation provisions in an indemnity contract where the clause does not negate or circumvent the LOIA. It must be stated that where the intention of the LOIA will be circumvented in an indemnity agreement, such provision will be unenforceable. The Court further noted that a subrogation waiver is invalidated when it shifts liability: such liability shifting is achieved in conjunction with an indemnity provision.

It must be noted that the courts have created a "*judicial exception"* to the LOIA for co-insurance. This exception allows indemnity clauses where the indemnitee pays for the insurance coverage of the indemnitor.[674] That is the indemnitee pays for its own coverage.[675] This arrangement was upheld by the Court as it prevented the shifting of the economic burden to another party. In other words, the indemnitee receives the benefit of the insurance it procured, rather than an indemnity, which the Statute proscribes.[676] This study considers this judicial exception very germane as it makes room for responsibility from both parties and

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[670] Redfearn, R. Jr., Anti-Indemnity Acts and their Impacts on Insurance Coverage: A Comparative Analysis' (*Insurance Journal Magazine*, 22 August 2005) <http://www.insurancejournal.com/magazines/features/2005/08/22/59608.htm > accessed 23 May 2016.
[671] LOIA s.2780 G.
[672] Babineaux v McBroom Rig Building Services, Inc.*806 E2d 1282* [5th Cir. 1987]. This study posits that the proscription of additional insured in certain jurisdiction would impede the essence of indemnity clauses especially as new risk dimensions has been noticed from the Macondo litigation in the U.S.
[673] 676 So. 2d 557 [La. 1996].
[674] Marcel v. Placid Oil Co. 100 11 F.3d 563 [5th Cir. 1994].
[675] The procurement of insurance for personal liability will arise where the liability from a particular activity has been apportioned to parties.
[676] Garner (n 665). However, where substantial part of the insurance coverage is to be borne by the indemnitee, the Marcel exception will not apply. *Amoco v. Lexington Ins. Co., 745 So.2d 676* [La. App. 1 Cir. 1999], where Amoco paid $2 000 to get coverage of $11 000 000 and the court declared the indemnity unenforceable.

creates a sense of burden on the indemnitee (contractor). In this regard, the indemnitor will be an additional insured in the indemnitees insurance policy on the subject matter of insurance.

While this practice may create a sense of burden on the indemnitee, it may not entirely discourage indemnitee from moral hazard as the risk has been passed on to the insurance company. Although, there will be premium implications and the insurance company can address this by stating in the policy that deliberate acts of negligence will not be covered.[677] Concerning pollution risk, this could tackle moral hazard, incentivise pollution prevention and encourage environmental responsibility among parties. It could also indirectly facilitate the application of the polluter pays principle as the indemnitee will be paying for an act of negligence it may solely or jointly created. This will go in tandem with the principle of fairness and reasonableness. What then is the place of an additional insured under the U.S regime?

6.2.3.4 The status of an additional insured in an indemnity contract.

When parties agree to a mutual indemnification scheme, it is common for them to be included in the insurance as an additional insured in the other party's insurance policy. This inclusion is to ensure that liabilities that may arise are well covered by insurance, despite the standard insurance requirements. An Additional Insured (AI) is a party who receives coverage for its liabilities under the insurance policy of the named insured. The policy also covers the named insured's obligation to defend and indemnify the indemnitee under the indemnity agreement.[678] The liability for the AI is not borne by the named insured, but by the named insured's insurer who bears such liability to the extent allowed under the 2013 ISO AI forms and manuscripts.

The named insured cover is called "*Contractual Indemnity Coverage",* and this applies to drilling contracts, conditioned by several definitions and exceptions. Under a commercial general liability scheme/policy, a drilling contract meets the meaning of an *"insured contract*". Under the insurance policy document, an AI is included as an insured in the insurance policy of the named insured.[679]

Up to present, the position of the law regarding AI and indemnity agreements is that AI coverage is broader than contractual indemnity obligations and that the coverage is not void

[677] Faure and Hartlief (n 93) 685.
[678] Stacy A Broman and Jenny L Sautter, 'Additional Insured Endorsements: Recent Efforts to Limit Coverage to the Additional Insured' (*FDCC Quarterly*, 2006) 81; Saxe and Keniry (n 649).
[679] Ellen Chapelle, 'Evolution of Additional Insured Endorsements' (2014) 23(1) Construction Litigation 10.

because of the sole or concurrent negligence of the AI.[680] Albeit, the 2013 Insurance Services Office, Inc. (ISO) AI forms, as released by the insurance industry, and the recent decision by the Texas Supreme Court in the Transocean v. BP case,[681] points towards a new approach to AI and liability coverage in indemnity agreements.

The ISO forms CG 20 10 04 13 and CG 20 27 13 as released by the insurance industry, introduced some novelties that may have far-reaching implications on the status of an AI. The analysis of the 2013 forms shows that coverage under the insurance policy is limited to what is agreed by the parties to the contract. That coverage under the policy is to the extent allowed by law, and that coverage under the policy is limited to the amount required by the contract.[682] The recent decision of the Supreme Court of Texas in the BP case reflects the fact that an AI is not limited only by policy terms but also by the contractual terms as acquired by parties in the contract. The Court held that "… a*pplying the only reasonable construction of that provision, we conclude that, as it pertains to the damages at issue, BP is an additional insured under the Transocean policies only to the extent of the liability Transocean assumed for above-surface pollution…"*[683]

BP and Transocean had agreed in their contract that "[BP], its subsidiaries and affiliated companies, co-owners, and joint venturers, if any, and their employees, officers, and agents shall be named as additional insureds in each of [Transocean's] policies, except Workers' Compensation, *for liabilities assumed by* [*Transocean*] *under the terms of the Contract"***.**[684] Thu**s,** the decision of the Supreme Court that BP is only an additional insured only to the extent of Transocean liability under the contract. The pollution that occurred was subsurface pollution, a risk allocated to BP under the contract.

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[680] Evanston Insurance Company v. Atofina Petrochemicals Inc. 256 S.W. 3d 660 [Tex. 2008]. The court held that Atofina is not barred from claiming payment for losses resulting from its own negligence even when the indemnity contract states so. The reason according to the court, is that the agreement that conferred upon Atofina the status of an AI is "*separate and independent"* from the indemnity agreement. Aubris Res. LP v. St. Paul Fire & Marine Ins. Co., 566 F.3d 483 [5th Cir. 2009]; Laura J Thetford, 'In Re Deepwater Horizon: Texas to Revisit ATOFINA to Decide Scope of Additional-Insured Liability Coverage' (2014) Fall South Texas Law Review 2&5.

[681] In Re Deepwater Horizon, No. 13-0670, S.W. 3d (Tex. Feb 13, 2015).

[682] Chapelle (n 679) 2; Mark M Bell, '2013 ISO Additional Insured Endorsements: Putting the Changes into Context for the Construction Industry' (*International Risk Management Institute Inc.*, 2013) <https://www.irmi.com/articles/expert-commentary/history-of-iso-additional-insured-endorsements > accessed 23 April 2016.

[683] Supreme Court of Texas decision in the BP Case In Re Deepwater Horizon, No. 13-0670, S.W. 3d [Tex. Feb 13, 2015].

[684] Ibid.

It can be safely argued that BP had assumed that it was covered by Transocean's insurance policy, hence its willingness to accept liabilities for subsurface pollution even in the face of contractor's willful misconduct or gross negligence. The AI status formed an aspect of BP's argument that coverage, under applicable law, is assessed exclusively by the wording of the insurance policy and not the indemnity portions of the contract. BP further argued that under the law, AI and indemnity provisions are *"separate and independent"*, and that an indemnity provision does not limit the scope of additional insured coverage. BP supported its arguments with the case of ***Evanston v. ATOFINA,*** which established that the insurance policy is separate and independent from the indemnity agreement for an AI. The Supreme of Texas, however, held otherwise.

It can be deduced from the various insurance forms and Texas Supreme court judgement that coverage for an AI is not determined by the "*separate and independent*" principle as established and believed by parties. Coverage is determined by the extent of liability, as stated in the indemnity contract between them. Again, this study deduced that coverage is applies only to the extent permitted by the law that governs the transaction.[685] The hydrocarbon industry had allocated risk based on the above rules, but the accident in the GoM presents new issues that should be examined; a core problem this research seeks to address. This study argues that the availability of coverage is a desideratum for risk acceptance and that the perceived scope of liability coverage for an AI strengthens the willingness to accept a given risk during contractual bargaining.[686]

The existing practice of risk allocation in the hydrocarbon industry leaves the operator to assume liability for subsurface pollution while the drilling contractor bears liability for surface pollution. From the BP case, it means that it will be wrong for an operator to assume that its subsurface pollution liability may be reduced or taken care of by its addition to the drilling contractor's policy as an AI. Again, anti-indemnity statutes and the new 2013 ISO insurance forms, present concerns to parties in their choice of law since the clauses in the parties' contract must be in tandem with the applicable law.[687] One can note that BP contracted to bear Transocean's liability, notwithstanding the latter's fault. With the new insurance endorsements, emerging concerns have to be addressed.

[685] Roberta D Anderson, '.ISO's 2013 "Additional Insured" Endorsement Changes Merit Close Attention' (2013) 23(3) Insurance Coverage Litigation 2.
[686] Coverage in the form of insurance or self-insure in the event of liability.
[687] Nicholas N Nierengarten, 'New ISO Additional Insured Endorsements' (2014) 44(1) Brief 33-35.

Can a named insured's insurance afford coverage for an AI indemnity obligation that is proscribed by statute? In some states, public policy considerations prevent a party from indemnifying another for negligence occasioned by the indemnitee.[688] However, it may well not be against public policy to procure insurance for that same negligence. The 2013 new ISO endorsements, CG 20 10 04 13 and CG 20 27 04 13, however, seem to exclude coverage for liability for which an anti-indemnity statute proscribes indemnification.[689]

Insurance cover is a way of mitigating risk, but the recent Supreme Court judgment and the new ISO endorsements indicate that an operator will solely bear the burden of well pollution without recourse to any mitigating palliative. Including an operator as an AI in a contractor's coverage, as decided by the court in **ATOFINA'S** case, would be an indirect way of distributing the burden of the liability the contractor would solely or jointly cause. It will also encourage and facilitate the willingness to bear the said risk on the part of an operator.

6.3 Gross negligence in Deepwater: The Macondo case

In the suit brought against BP by the US government,[690] the finding of facts and conclusions of law in the Macondo spill led the District judge, Carl Barbie to hold, among other things, that the Macondo spill was the result of BP's gross negligence. Also, BP shall be liable without limit for violating federal law – The Clean Water Act (CWA). Curiously, the decision of the court leaves one to wonder what the legal standard is for gross negligence and willful misconduct, as set out by law or in the OPA/CWA, and what informed the court's decision. These questions are fundamental as the OPA, and the CWA does not define the concept '*gross negligence'*. Again, under the U.S regime, there exist a litany of conflicting definitions in the jurisprudence, as the courts are confounded by these labels.

It is worth noting that the formulation of the standards for gross negligence is an issue of law. The determination as to what conduct can be qualified as such is an issue of fact placed before and evaluated by the court. The court in ***United States v. CITGO Petroleum Corp***[691]highlighted these aspects. The court stated that a 'finding that a party is negligent or grossly negligent is a finding of fact and must stand unless it is manifestly erroneous'. A finding is manifestly

[688] Gerald F Slattery Jr, 'Indemnity and Insurance in the Texas Oil Patch' (2014) 10(1) Texas Journal of Oil, Gas and Energy Law 112-113.
[689] Chapelle (n 679) 3.
[690] In re Oil Spill by the Oil Rig "Deep water Horizon in the Gulf of Mexico, 2014 WL 4375933 [E.D. La. Sept. 4, 2014].
[691] United States v. CITGO Petroleum Corp., 723 F.3d 547, 556 [5th Cir.2013]

erroneous where it was neither supported by evidence, or the court abandoned the evidence.[692] This study posits that in negligence actions, the focus is on whether the defendant acted unreasonably, and not on the degree of negligence involved. Hence, courts are rarely required to determine the degree of a defendant's negligent behaviour since the egregiousness of the defendant's conduct is irrelevant in determining whether liability attaches.[693]

Since no clear definitions of gross negligence exist under the CWA, the US government and BP disagreed over the meaning of gross negligence but agreed on what constitutes willful misconduct. In its argument, the US government asserted that what is required in gross negligence, as in ordinary negligence, is an objective and not a subjective proof. That while ordinary negligence is a failure to exercise the degree of care a reasonable man would apply in the circumstance, gross negligence is a significant departure from the care required in the circumstance. Consequently, the US argued that gross negligence varies from ordinary negligence only in degree and not kind.[694]

On its part, BP argued that gross negligence has both objective and subjective elements. BP, like the US, advanced that gross negligence requires a significant departure from the usual standards of care (objective element), but it further stated that a 'culpable mental state' must emanate from the actor (subjective element), to establish gross negligence. To BP, subjective awareness of the risk must exist in the mind of the actor who nonetheless proceeds with conscious indifference to the safety, welfare, and rights of other people.

On the meaning of willful misconduct, both parties agreed that it is "*an act, intentionally done, with the knowledge that the performance will probably result in injury or done in such a way as to allow an inference of a reckless disregard of the probable consequences. If the harm results from an omission, the omission must be intentional, and the actor must either know the omission will result in damage or the circumstances surrounding the failure to act must allow an implication of a reckless disregard of the probable consequences*".[695] It has been stated that the word 'reckless' is used by courts to refer to conducts that are not malicious, intentional or callous towards the risk of harming other people as opposed to unheedful.[696]

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[692] Houston Exploration Co. v. Halliburton Energy Services Inc., 269 F.3d 528, 531[5th Cir. 2001].
[693] Dobbs (n 214) 349.
[694] In re Oil Spill by the Oil Rig "Deep water Horizon in the Gulf of Mexico (n 85).
[695] Conclusion of Law proposed by the United States 10, Rec. Doc. 10460-2 (quoting Tug Ocean Prince v. United States, 584 F.2d 1151, 1163 (2d Cir. 1978)).
[696] Exxon Shipping Co. v. Baker, 554 U.S. 471, 493-94, 128 S.Ct. 2605, 171 L.Ed.2d 570 (2008) were it was stated that "`*Recklessness may consist of either of two different types of conduct. In one the actor knows, or has*

Summarising the arguments of the parties, the court noted that under the OPA and the CWA, gross negligence and willful misconduct are different forms of conduct,[697] and that willful misconduct is more egregious than gross negligence. The court also stated that 'reckless conduct' cannot be included in gross negligence but in willful misconduct.[698] As a result, the court accepted the US government definition of willful misconduct and held that the definition of gross negligence and willful misconduct advanced by the US government is correct since parties are in agreement that 'reckless conduct' is included in willful misconduct. The court also concluded that gross negligence and willful misconduct mean the same under both the OPA and the CWA.[699]

It has been advanced in this study that gross negligence has confounded the courts, thereby giving rise to a litany of conflicting definitions in the US jurisprudence. This conflicting judgement is evident in Judge Barbie's opinion in the BP case. While he accepted the meaning of gross negligence as offered by the Fifth Circuit in ***United States v. Citgo Petroleum Co***.,[700] in his view the definition offered no assistance as it was vague and contradictory. It means that the courts are still unable to lay a clearly defined legal standard for the definition of gross negligence.

The Supreme Court missed an excellent chance to develop a clear legal standard in ***Exxon Shipping Co. v. Baker.***[701] The court was split evenly. In the BP case, the latter opted for a rather political settlement to avoid damaging further its corporate image. However, this study is attempting to offer its definition of the term "*gross negligence*" which could be applied by both courts and actors in the oil industry. Hopefully, the definition will help the industry practitioners in negotiating and allocating risk for offshore oil and gas contracts.

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reason to know ... of facts which create a high degree of risk of ... harm to another, and deliberately proceeds to act, or to fail to act, in conscious disregard of, or indifference to, that risk. In the other the actor has such knowledge, or reason to know, of the facts, but does not realize or appreciate the high degree of risk involved, although a reasonable man in his position would do so"'.

[697] OPA 1990 33 U.S.C. § 2704(c)(1)(A), and 33 U.S.C. § 2716(f)(1)(C).

[698] The courts have held that the interpretation of "wilful misconduct" under the CWA and OPA support the conclusion that the term includes reckless conduct. *See Tug Ocean Prince, Inc. v. United States,* 584 F.2d 1151, 1163 [2d Cir.1978]; *Water Quality Ins. Syndicate v. United States,* 522 F.Supp.2d 220, 229 [D.D.C.2007].

[699] Under the CWA, the standard for maximum liability was "*willful negligence* or willful misconduct." 33 U.S.C. § 1321(b)(6)(B) (1988). The OPA modified this to "gross negligence or willful misconduct" Pub.L. 101-380, § 4301(b)(D), S*ee also* H.R. Rep. No. 101-653, at 52 (1990) (Conf. Rep.), *reprinted in* 1990 U.S.C.C.A.N. 779, 832. *See* also Water Quality Ins. Syndicate v. United States, 522 F.Supp.2d 220, 229 (D.D.C.2007) (relying on case law interpreting "willful misconduct" under the CWA to interpret that phrase under OPA); 82 C.J.S. *Statutes* § 476 (2014).

[700] United States v. Citgo Petroleum Co (n 651).

[701] 554 U.S. 471, 484 (2008).

6.4 Conclusion

Risk allocation in the UK and US regimes is carried out with a business benefit mindset and is not subject to gross negligence. It has been stated that ownership, control and ability to bear risk are the reasons for this practice. However, the Macondo accident offers a new perspective on risk allocation. New regulations which followed the Macondo disaster, compel a rethink of the risk allocation practice between operators and contractors.

Under these regimes, the concept of gross negligence is still nebulous and provides an escape route for the indemnitee, where a bad oilfield practice results in harm. Under the UK regime, gross negligence is not yet a term of art, although parties in some contracts occasionally use it. Under the US regime, the courts do not follow a particular method of interpretation for gross negligence. However, this study has provided an interpretation of gross negligence in chapter three that could assist the court.

Note that alternatives 2 and 3 of Article 13 of the AIPN model contract reviewed above supports a distributive outcome for harm or losses, especially in a post-Macondo era. These alternatives are also consistent with the public policy consideration which seeks to make a party at fault bear the consequences of his gross negligence, subject however to the benefit he reaped from the activity (a cap). The implication of the BP case on the future of offshore drilling activities, and the attempt by some players to move risk to other parties in the industry calls for a rethink of the risk allocation model towards a distributive justice direction. The call is to make mutual indemnity subject to gross negligence in risk allocation.

Chapter 7 Risk allocation in standard forms and private contracts under a production sharing contract regime

"In the South/South East Asian context, it is not unusual for contractors to be obliged to maintain certain levels of well control cover and to assume at least some measure of contractual liability to the company in respect of well control situations to the extent that those situations are caused by the contractor's acts or omissions".[702]

7.0 Introduction

This chapter seeks to discuss the practice of risk allocation through mutual indemnity clauses in standard forms and private operator and contractor agreements, under a PSC regime. It also focuses on how gross negligence applies in drilling contracts. To understand the risk allocation practice, the focuses of this chapter is on two jurisdictions - Nigeria and Indonesia - who are key users of the PSC regime. This chapter will also examine the above governments' PSCs practice to understand its relationship with operator and contractor agreements in petroleum operations. An examination of these PSC regimes is essential since the well operator, is first a contractor to government, and later an operator of a well, when granted exploration rights. The well operator contracts with a drilling contractor on how risks could be allocated during drilling operations. It is, therefore, desirable to understand the interplay of risk allocation between these key participants. An understanding of all these contracts is essential in the design of a practical method of risk allocation using mutual indemnity clauses.

7.1 Production Sharing Contract (PSC) regime: Nigeria and Indonesia in focus

Although the focus here is the contract between the well operator and the drilling contractor, it is essential to look at the process that leads to the contract for drilling between the two parties. PSC[703] is the most common means of engaging IOCs in the E&P of hydrocarbons in developing countries. The aim is to exercise sovereignty over natural resources, control the petroleum activities, and collect taxes from IOCs. PSC was first introduced in the Indonesian legal system in the 1960s. The main idea was to retain the ownership of hydrocarbon, with a part going to the IOC as payment for its production.

The PSC is referred to as the "Host Government Contract", since the contract is between a host country and an IOC. Through this contract, an IOC is granted legal right by the Host

[702] Toby Hewitt, 'An Asian Perspective on Model Oil and Gas Service Contracts' (2010) 28(3) Journal of Energy & Natural Resources Law 338.
[703] This study shall adopt the term "Production Sharing Contract" for consistency.

Government (HG) to conduct hydrocarbon operations.[704] The IOC owns a share of the oil, as agreed by parties, once it is extracted. The ownership of oil in a PSC is radically different from a Concession approach where the licensee is guaranteed a bankable or bookable reserve. After the well operator has signed the necessary PSC contract with the government, he goes ahead to engage a drilling contractor to drill the well.

Zhiguo Gao posits that a PSC is an "*agreement under which a foreign company, serving as a contractor to the host country/its national oil company, recovers its costs each year from production and is further entitled to receive a certain share of the remaining production as payment in kind for the exploration risks assumed and the development service performed if there is a commercial discovery*".[705]

The PSC is one part of the regime that governs resource extraction and set out the rights, duties necessary conditions that are necessary for an IOC to explore and exploit hydrocarbon in a given country. Before a particular PSC is signed, the IOC must win the contract through a competitive bidding process, ad hoc negotiation or a first-come-first-served mechanism. It is worth noting that for the PSC, an IOC is referred to as the "contractor", whereas under a Joint Operating Agreement (JOA) with the HG it is called the "operator".[706] Suffice it to state that the focus here is not about the contractual or regulatory relationship between the HG and the well operator. It is about risk allocation through mutual indemnity in standard forms and private contracts between an operator and a drilling contractor, as practised under PSC regimes in Nigeria and Indonesia. This study will also consider other relevant laws and regulations that may provide useful insights into risk and liability allocation for offshore hydrocarbon activities under these regimes.

7.1.1 Nigeria

Nigeria is the leading producer of hydrocarbons in Africa, and among the top ten producers in the world. Its economy is dependent on oil revenue. The petroleum industry in Nigeria operates a business model using PSC, Joint Venture, and Risk Service Contracts.[707] However, PSC

[704] OpenOil (n 533).
[705] Zhiguo Gao, *International Petroleum Contracts: Current Trends and New Directions* (Graham & Trotman Ltd 1994) 72.
[706] A JOA may be entered into with the National Oil Company (NOC) of the HG.
[707] Joseph Nwaokoro, 'Beyond Legislation: A Contractual Alternative to Legislating Local Content in Nigeria' (2009) 18 Current International Trade Law Journal 42.

plays a critical role.[708] It has a national oil company (NOC) called the Nigerian National Petroleum Corporation (NNPC). The NNPC facilitates the government's PSC and JV activities and drives the hydrocarbon plan.[709] As a significant player in the industry, Nigeria engages in deepwater hydrocarbon E&P in the Bonga, Erha, and Agbami oil fields.[710]

Under the PSC approach, funding obligation is borne by the respective IOC as a contractor. Sometimes, there may be counterpart funding from the government. IOC is solely responsible for providing investment and fulfilling technical requirements for day-to-day operations. The IOC bears all attendant risk, although it is allowed to recover the cost through the "*cost oil*" provision.[711] The PSCs are long term arrangements concluded for thirty years period, covering ten years of exploration and twenty years of production, with a relinquishment clause for part of the contract area.[712]

The NOC exercises control and management over operations while the contractor, an IOC, is responsible for the work programme. The drilling contract between the operator and the contractor arises from the work programme. The well operator is the one who supervises the drilling operations. It is worth noting that the state retains the ownership right through the NOC. Arguably, such an arrangement represents a viable option for developing countries endowed with hydrocarbon resources.[713] In essence, what the PSC does is to break ownership from operatorship, thus leaving HG with the right to approve field agreements which may in turn influence the allocation of risk between the operator and the drilling contractor.[714] The right of the regulator to approve field agreements could be used to prohibit certain practices during petroleum operations. An instance could be the prohibition of an interpretation of gross negligence as mere negligence.

The NNPC as NOC enters into a contract with the IOC or IOCs, on behalf of the state, and executes a PSC for a particular block on specified terms as agreed by the parties. The terms of a PSC differ from country to country and from party to party because every contract is

[708] Yinka Omorogbe, 'The Legal Framework for the Production of Petroleum in Nigeria' (1987) 5(4) Journal of Energy and Natural Resources 273. This position has not changed as Nigeria still operates a mono-economy driven by oil, with little attempt to venture into other means of economic sustenance.
[709] Nigerian National Petroleum Corporation (NNPC) < http://nnpcgroup.com/ >accessed August 19, 2016).
[710] Akinjide-Balogun (n 152).
[711] Sola Adepetun, 'Production Sharing Contracts: The Nigerian Experience' (1995) 13(1) Journal of Energy and Natural Resources Law 21.
[711] Ibid 23.
[712] Ibid 23.
[713] Ibid 28.
[714] See chapter 8 on how field approval agreement could influence operator and contractor drilling contracts

negotiated on separate terms and conditions.[715] The reason is that every contract is negotiated on its own terms and conditions. In some PSCs, reference could be made to indemnity, negligence or gross negligence. However, the indemnity clause is often included to protect the government against third party claims in connection with the contract. Although the PSCs examined between the government and IOCs in Nigeria, include no reference to indemnity and risk allocation, the study of the available PSCs reveals the usage of the terms "gross negligence and willful misconduct in the case of an accident. In the PSC between NNPC and IDEAL Oil and Gas and 2 others, covering OPL No. 905 block, Anambra Basin, Nigeria, gross negligence was define as "*any act or failure to act of any senior supervisory personnel (whether sole, joint or concurrent) which was intended to cause, or which was in reckless disregard of or wanton indifference to the harmful consequences such act or failure to act would have on (a) the safety of personnel or property or (b) petroleum operations or (c) books and accounts and oil industry accounting standards and procedures*".[716]

The above PSC extract relates to the contract between the HG and the IOCs involved in the named block. The state plays an ownership role in the contract and regulates field operations. The contract does not relate to the operator and drilling contractor. As has been stated already, the PSC between the HG and the contractor, who later becomes the well operator, leads to a contract between the well operator and the drilling contractor. As a result, it is also pertinent to examine standard forms if any, and private risk allocation contract between an operator and a contractor as they will provide useful insights into risk allocation vital for this study. However, before looking at these contracts, it would be useful to establish what the domestic legal system provides with regards to indemnity agreements.

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[715] Taiwo A Ogunleye, 'A Legal Analysis of Production Sharing Contract Arrangements in the Nigerian Petroleum Industry' (2015) 5(8) Journal of Energy Technologies and Policy 2. Ogunleye, quoting Duval et al, summarised the key features of PSC to wit: "*The International Oil Company (IOC) is appointed by the Host Country (HC), directly or through its national oil company (NOC), as the exclusive "contractor" (and not as a concessionaire) to undertake petroleum operations in certain area during specified time periods; The IOC operates at its sole risk, its own expense, and under the control of the HC; If petroleum is produced, it belongs to the HC, with the exception of a share of production that can be taken in kind by the IOC for cost recovery and for profit sharing; The IOC is entitled to recover its eligible cost under the PSC from a portion of the production from the area subject to the contract; After cost recovery, the balance of the production is shared, based on a predetermined percentage split between the HC and the IOC; The net income of the IOC is taxable, unless the PSC provides otherwise; The title to the equipment and installations purchased by the contractor pass to the HC either immediately or overtime, in accordance with the cost recovery schedules". See p.2.*

[716] See appendix 1 in the annexures, p 9. Available from <file:///E:/1692-gas-transmission-and-power-limited-energy-905-suntera-limited-ideal-oi....pdf > accessed 20 January 2017.

7.1.1.1 The Petroleum Act 1969 of Nigeria

The Petroleum Act of 1969 is the key piece of petroleum legislation that vests the ownership of hydrocarbons (offshore and onshore) in the state[717] and empowers the state to govern its extraction. This right, among other things, include the authorisation (licensing) of prospecting, exploration, and mining by the IOCs for hydrocarbon extraction.[718] The Act also places the regulatory control of petroleum activities on the state but makes no mention of indemnities agreements. Nevertheless, the Act could be a regulatory tool to ensure compliance with practices and exercise or ownership by the state through field approval agreements.

The Deep Offshore and Inland Basin Production Sharing Contracts Act of 1999 is another crucial piece of hydrocarbon legislation. It governs production sharing of hydrocarbons and outlines taxes and royalties to be paid by the IOC. However, there is nothing in the Act on risk allocation either. The Petroleum (Drilling and Production) Regulation is more relevant as it helps to better understand the liability regime for oil pollution damage under the Nigerian PSC. Under Section 25 of the said Regulation,[719] it is the responsibility of a licensee to prevent, control, or end any pollution arising from hydrocarbon exploration within the inland waters, watercourses, territorial waters or high sea of Nigeria.

This PSC practice assumes that the operator and the contractor are a vertically integrated company where the drilling service is part of the operator's company and not contracted. In a drilling operation, the relationship between the well operator and the drilling contractor is a non-vertical integration. The difference lies in the fact that for vertical integration, the contractor will be an equity holder, while in a non-vertical integration, the drilling contractor has no stake in the operator's company. The contractor is only paid for its services.

In the current practice of risk allocation, it means that the gross negligence of the drilling would be borne by the operator, who may not be able to recover the loss, the fault of the drilling contractor notwithstanding. Within the Nigerian context, the IOC (well operator) hires the driller, who he eventually discharges at the end of the drilling operations. Drillers are

[717] The Petroleum Act 1969, Nigeria, s.1.
[718] Ibid, s. 2.
[719] Petroleum (Drilling and Production) Regulation, 1969. The section provides that "*the licensee or lessee shall adopt all practicable precautions, including the provision of up-to-date equipment approved by the Director of Petroleum Resources, to prevent the pollution of inland waters, rivers, watercourses, the territorial waters of Nigeria or the high seas by oil, mud or other fluids or substances which might contaminate the water, banks or shoreline or which might cause harm or destruction to fresh water or marine life, and where any such pollution occurs or has occurred, shall take prompt steps to control and, if possible, end it.*"

independent contractors hired on a contract for service, albeit, the well operator plays a supervisory role. Their agreement is private and based on parties' bargain.

It stands to reason that the IOC, who is a contractor to the state and an operator for the purpose of the oilfield, is the responsible party. Thus, one can argue that an IOC has the duty to prevent, control and mitigate pollution in the Nigerian waters during petroleum operations. Although the regulations did not define gross negligence or refer to risk allocation, the PSC form signed by the NNPC and IOCs sometimes refer to gross negligence and a definition provided. However, the definition still fails to cover the concept of gross negligence. In chapter three of this study, the definition of gross negligence has been provided to operate as a term of art. This study posits that gross negligence is any conduct that falls far below the standard of a reasonable man (reasonable oilfield practice). The emphasis on 'far below' distinguishes mere negligence from gross negligence and the standard of what is 'far below' is that of a reasonable man (objective standard) as opposed to an individual perspective (subjective standard).

For environmental damage or other harm caused by pollution, the IOC has the responsibility to fix any such damage or harm caused to persons or properties during its operations. Under a PSC, the IOC will usually be entitled to a share of the extracted hydrocarbon to cover its cost.[720] This provision is often included in a PSC between a national oil company with an IOC. This provision is however subject to the clause on "gross negligence". The gross negligence prevents the contractor from applying the cost as "petroleum cost or qualifying cost" under the agreement. There is, importantly, no statutory or judicial definition of gross negligence, except for individual contracts.

The definition of gross negligence as provided in the PSC between NNPC and IDEAL Oil and Gas and two others, referred to above, only refers to the actions of senior supervisory personnel to establish whether there was an intention to cause harm. Albeit, gross negligence is not limited to such actions; it can be interpreted more broadly. As a corporate conduct, it could arise from mere employees of the company who were not adequately supervised or who followed the culture of complacency practised by the company.[721] Where an employee acted within the scope of his employment, and for the employer's benefit, the company would be liable for his acts of gross negligence resulting from his scope of work.[722]

[720] OpenOil (n 533) 168.
[721] Phase 1 trial (n 85). Judge Carl Barbier note that it is irrelevant whether the conduct was by managerial personnel or not. It is sufficient that the employee work for the company.
[722] Ibid.

As stated earlier, gross negligence does not have clearly defined legal standards for the determination of liability. The conduct that could qualify as gross negligence varies from one regime to another, thus making it a complex area of law. The definition, therefore, will be left to the court to determine when such a need arises. It becomes necessary to follow the definition of gross negligence, in chapter three, to avoid multiple judicial interpretations. Applying the definition stated in chapter three will provide a clear legal standard to understand what conduct is or is not gross negligence. The author of this study is unaware of any court judgment on the issue of gross negligence in Nigeria.

7.2 Standard form contracts for drilling in Nigeria

Nigeria' oil industry is still evolving. As a developing country, it has no industry-wide accepted classic model. It adopts a patchwork of contractual templates for drilling operations stemming from the UK and the US.[723] The majority of the drilling contractors and IOCs carrying on hydrocarbon operations in Nigeria also come either from the UK or the US. Currently, there exists a chapter of the IADC in Nigeria,[724] which was established in 2012 with initially four members, but it has grown to twenty-six members by 2014.[725]

Only PSC forms between the HG and IOCs exist. They address, among other things such issues as duties, rights, and obligation of parties (NOC and IOC), tax and royalties, production sharing, cost recovery, management arrangement. Without a doubt, the PSC is only a contractual authorisation granted by a state to IOC to explore and exploit oil. It is not a drilling contract. This study notes that where a NOC such as NNPC, PETROBRAS etc., engages the services of a drilling contractor directly, such NOC shall be regarded as the operator of the well. In this regard, a private drilling contract, not the PSC, shall guide the contractual relationship between the NOC and the driller. Regarding operator and contractor drilling contracts, no industry-styled[726] standard form for drilling apply in Nigeria. However, some useful information and ideas on indemnity agreements can be obtained from some operator and contractor private drilling contracts.

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[723] Some of the templates adapted in Nigeria include the AIPN model, IADC model and the LOGIC model forms. This could present some challenges in the future as the adaptations mirror these models and does not provide that gross negligence should be a liability trigger.
[724] IADC, 'Nigeria Chapter' < http://www.iadc.org/nigeria-chapter/> accessed 28 December 2018.
[725] Drilling Contractor, 'Nurturing Growth in Africa' <http://www.drillingcontractor.org/nurturing-growth-in-africa-30580 > accessed 26 September 2016.
[726] It means that no industry body such as AIPN, or LOGIC exist that development model forms for risk allocation.

7.2.1 Risk allocation in operator and contractor drilling contracts in Nigeria

In Nigeria, the allocation of risk between the operator and contractor follows the pattern of risk allocation under the Concession regimes examined earlier, albeit, with some peculiarities. The contracts examined in this study are not in the public domain, and therefore names and other relevant information traceable to the owners have been removed. It is worth mentioning that Shell, Agip, ExxonMobil, Chevron, Total, Elf[727] etc. are the principal operators in the Nigerian hydrocarbon industry, while Schlumberger, Halliburton, Transocean, Noble drilling and other foreign companies are the most prominent drilling contractors.

Indemnity clauses examined in the contracts obtained is the same as the traditional indemnity provisions discussed already. Mere negligence and gross negligence were treated as negligent conduct which will not amount to liability on the part of the party at fault. This study maintains that gross negligence ought to be grouped in a class of its own, and a contractual and regulatory direction provided to guide against classifying the two conducts as one.

See extracts from a private agreement between an operator and a contractor in Nigeria and attached as ***Appendix 2*** in the annexure to this study.

ARTICLE V – CONTRACTOR'S GENERAL OBLIGATIONS

501. CONTRACTOR'S STANDARD OF PERFORMANCE

… Except for such obligations and liabilities specifically assumed by the Contractor, the Operator shall be solely responsible and assumes liability for all consequences of operations by both parties while on a Daywork basis, including results and all other risks or liabilities incurred in or incident to such operations, notwithstanding any breach of representation or warranty, either expressed or implied, or the negligence or fault of the Contractor, its employees, agents or servants, including sole, concurrent and gross negligence, either active or passive, latent defects and any liability based on any theory of tort, breach of contract or strict liability, including defect or ruin of premises, either latent or patent.

ARTICLE IX – LIABILITY

901. EQUIPMENT OR PROPERTY

Excepts as specifically provided herein to the contrary, each party hereto shall at all times be responsible for and shall hold harmless and indemnify the other party from and against damage to or loss of its own equipment or property, regardless of the cause of loss, including the negligence of such party, and despite the fact that a party's items may be under the control of the other party, except that:

[727] As at 2016, the supermajors are divesting from shallow water to deep offshore, while leaving indigenous companies to venture into shallow water operations.

(a) The Operator shall, to the extent the Contractor's Insurance does not compensate the Contractor therefore, be responsible at all times for damage to or destruction of the Contractor's equipment or property caused by exposure to unusually corrosive or otherwise destructive elements, including those which are introduced into the drilling fluid from subsurface formations or the use of corrosive additives in the fluid.

(b) The Operator shall, to the extent the Contractor's Insurance does not compensate the Contractor therefore, be responsible for damage to or loss of the Contractor's drill string, and shall reimburse the Contractor for such damage or loss at the depreciated value of the item so lost or damaged; with the understanding, however, that the indemnity granted in this Clause 1001 shall not indemnify either party for liabilities incurred by it as a result of obligations undertaken in a contract with a third party.

904. CONTRACTOR'S PERSONNEL

The Contractor agrees to protect, defend, indemnify, and save harmless the Operator, its officers, directors, employees and joint owners from and against all claims, demands and causes of action of every kind and character, without limit and without regard to the cause or causes thereof or the negligence of any party or parties, arising in connection herewith in favour of the Contractor's employees or of the Contractor's subcontractors or their employees, or the Contractor's invitees, on account of bodily injury, death or damage to property…

905. OPERATOR'S PERSONNEL

The Operator agrees to protect, defend, indemnify, and save harmless the Contractor, its officers, directors and employees from and against all claims, demands, and causes of action of every kind and character, without limit and without regard to the cause or causes thereof or the negligence of any party or parties, arising in connection herewith in favour of the Operator's employees or the Operator's contractors or their employees, or the Operator's invitees, other than those parties identified in paragraph 1004 on account of bodily injury, death or damage to property…

906. POLLUTION AND CONTAMINATION

Notwithstanding anything to the contrary contained herein, it is understood and agreed by and between the Contractor and the Operator that the responsibility for pollution or contamination shall be as follows:

(a) The Contractor will use its best efforts to assure that all operations undertaken on the drill site meet the environmental standards established by the Government of Nigeria, particularly with regard to maintaining zero discharge levels on drilling fluids and formation cuttings.

(b) The Contractor shall assume all responsibility for cleaning up and containing pollution or contamination which originates above the surface from improper care or disposition of items wholly in the Contractor's possession and control and directly associated with the Contractor's equipment and facilities.

(c) The Operator shall assume all responsibility for (including control and removal of the pollutant involved) and shall protect, defend, indemnify and save harmless the Contractor from and against all

claims, demands, and causes of action of every kind and character arising directly or indirectly from all pollution or contamination, other than that described in subclause (b) above, which may occur from the negligence of the Contractor or otherwise during the term of this Contract or as a result of operations hereunder, including, but not limited to, that which may result from fire, blowout, cratering, seepage or any other controlled flow of oil, gas, water or other substance, as well as the use or disposition of oil emulsion, oil base or chemically treated drilling fluids, contaminated cuttings or cavings, lost circulation and fish recovery materials and fluids.

(d) In the event a third party commits an act or omission which results in pollution or contamination for which either the Contractor or the Operator for whom such party is performing work is held to be legally liable, the responsibility therefore shall be considered, as between the Contractor and the Operator, to be the same as if the party for whom the work was performed had performed the same and all of the obligations respecting defense, indemnity holding harmless and limitation of responsibility and liability, as set forth in (b) and (c) above, shall be specifically applied.

910. INDEMNITY OBLIGATION

Except as otherwise expressly limited herein, it is the intent of parties hereto that all indemnity obligations and/or liabilities assumed by such parties under terms of this Contract, including, without limitation, clauses 1001 through 1009 hereof, be without limit and without regard to the cause or causes thereof (including pre-existing conditions), strict liability, or the negligence of any party or parties, whether such negligence be sole, joint or concurrent, active or passive.

The above clauses were extracted from private drilling contract between an operator and a contractor. While this is the industry practice, this study notes that the above clauses could lead to less care in the case of obligations not directly under the care of a given party. As a result, it will be incompatible with public policy and the burden aspect of distributive justice. There is apparently, no obligation on a party which does not have legal responsibility for risk, to take measures aimed at preventing harm. It has been advanced earlier in this study that a party whose severely awful conduct has occasioned harm or loss, should bear responsibility for the loss or harm, albeit, in the proportion of his benefit. The above clauses are the direct opposite. They do not provide responsibility for severely wrongful oilfield practice.

It is worth noting that some of these contracts refer to specific terminologies as used in the IADC forms, a pointer that these drilling contracts may have been drafted after the IADC drilling forms, subject to minor modifications. IADC drilling contracts contain mutual indemnities that are not subject to gross negligence on behalf of the party that occasioned the harm or loss.[728]

[728] IADC, 'IADC International Daywork Drilling Contract Offshore' (I*ADC*, revised in 2007) <https://store.iadc.org/product/iadc-international-daywork-drilling-contract-offshore > accessed 23 April 2015.

It will be appropriate to examine another operator and contractor drilling contract obtained for this study. Its provisions regarding indemnity for property damage, injury or death of personnel, sickness and disease are similar. This contract is marked as ***Appendix 3*** in the annexures.

11.2 COMPANY Property and Personnel

11.2.1 General

Subject to Article 11.1.5 COMPANY shall be responsible for and shall defend and indemnify CONTRACTOR and all Subcontractors against:

(i) all loss or damage to the COMPANY Items and to the property of COMPANY, Other CONTRACTORs and their respective personnel at the Site, and

(ii) any personal injury, including fatal injury and disease, to the respective personnel of COMPANY and Other CONTRACTORs attributable to the Site however caused that arises out of or is connected with performance of the Work regardless of whether the negligence or breach of duty of CONTRACTOR or Subcontractors caused or contributed to such loss, damage or personal injury.

11.3 CONTRACTOR Property and Personnel

11.3.1 General

Subject to Article 11.1.5 CONTRACTOR shall be responsible for and shall defend and indemnify COMPANY and all Other CONTRACTORs against:

(i) all loss or damage to the CONTRACTOR Items and to the property of CONTRACTOR, Subcontractors and their respective personnel at the Site, and

(ii) any personal injury, including fatal injury and disease, to the respective personnel of CONTRACTOR and Subcontractors attributable to the Site

however caused that arises out of or is connected with performance of the Work or the provision of medical assistance under Article 6.8 regardless of whether the negligence of COMPANY or Other CONTRACTORs caused or contributed to such loss, damage or personal injury.

11.5 Third Parties

Subject to Article 11.1.5 and without prejudice to any other express liability or indemnity provision of this Contract, each party shall be responsible and liable for any and all claims resulting from:

(a) personal injury, including fatal injury and disease, to Third Parties and/or;

(b) loss of or damage to property of Third Parties to the extent it is liable in accordance with applicable law.

The liability assumed herein by CONTRACTOR shall be limited to ***US $10,000,000 (ten million US Dollars)*** *for any one accident or series of accidents arising out of any one occurrence and in excess of such level liability shall be assumed by COMPANY but only to the extent that such liability arises out of or is connected with performance of the Work.*

11.6 Company/Contractor and Pollution

11.6.2 COMPANY shall defend and indemnify CONTRACTOR against all claims for loss, damage or expense (including cost of control and/or clean-up of the pollutant) arising from or relating to contamination or pollution which results in whole or in part from:

(a) fire, blowout, cratering or Uncontrolled Flow or Reservoir Fluids regardless of cause;

(b) seepage of Reservoir Fluids from the seabed or surface of the land, or any other escape of Reservoir Fluids from any point upstream of the primary surface shut-off control valve of the well in question regardless of cause; and

(c) subject to Article 11.6.3, the possession, use or disposal by Other CONTRACTORs of Reservoir Fluids, Petroleum Products and other substances (including without limitation contaminated cuttings, and lost circulation and fish recovery materials and fluids) that are connected with the Work or wells to be drilled for COMPANY.

11.6.3 CONTRACTOR shall defend and indemnify COMPANY against all claims for loss, damage or expense (including cost of control and/or clean-up of the pollutant) arising from or relating to contamination or pollution which results in whole or in part from:

(a) any escape (other than an Uncontrolled Flow) of Reservoir Fluids from CONTRACTOR's Items at any point downstream of the primary surface shut-off valve of the well in question;

(b) subject to Article 11.6.3(c), any escape from CONTRACTOR's Items or from CONTRACTOR's or any Subcontractor's possession or control of any Petroleum Product, pipe dope, garbage, sewage, debris or other substance (excluding Reservoir Fluids) whether or not caused or contributed to by the negligence or breach of duty of COMPANY or of any Other CONTRACTOR; and

(c) any escape attributable to the negligence or breach of duty of CONTRACTOR or any Subcontractor of any oil emulsion, oil base or chemically treated drilling fluids or of lost circulation

and fish recovery materials when such items are in the possession or control of CONTRACTOR or of any Subcontractor.

11.6.4 The provisions of this Article 11.6 apply only to contamination or pollution emanating from the Site or from the immediate vicinity of the Site that is connected with drilling and/or associated operations at the Site.[729]

As can be seen from the above provisions, the allocation of risk is without regard to the fault of the parties' (whether it be sole or contributory, mere negligence or gross negligence), and the basis of the risk allocation is the possession of equipment and facilities and control of the operations that result in damage or loss. Unlike the alternative section in the AIPN Model where gross negligence is a trigger, there exist no carve-outs to trigger liability under the Nigerian regime for drilling contracts. The phrase "without recourse to fault" could be the reason for not defining gross negligence in any of the drilling contracts between operators and contractors.

The indemnity clauses, as seen in these contracts, create no obligation for a party to prevent harm from a risk that has not been allocated to it. The practice tilt towards an assumption that the operator and the driller are vertically integrated. However, that is not the reality in actual operation. The practice also gives room for a party to use the mutual indemnity agreement as a cover against liability for grossly negligent behaviours. In this way, the deterrence and liability underpinning of public policy is taken away in the contract. The result will be the exercise of less care that could lead to harm against society. The risk allocation practice is incompatible with public policy as it enables a party to cause harm to society or cause loss to a contracting party by allowing serious conduct to go unpunished. Thus, this may result in harmful practices that could cause harm and encourage loss to others.

The only area where gross negligence was seen to be a liability trigger was in the contract between NNPC and IDEAL OIL AND GAS and two others referred to above. This is a contract that relates to the HG and an IOC and not a well operator and a drilling contractor. Even the definition offers little hope as it contains elements of intention, and other phrases such as "reckless disregard and wanton indifference", which are pointers of willful misconduct, as held in the BP case.

The most recent legal argument in the public domain on the meaning of gross negligence emanated from the BP case wherein the court agreed with the US that gross negligence is founded on objective proof, occasioned by a failure to exercise the care required in the

[729] See Appendix 3.

circumstances.[730] The inclusion of phrases such as "*intended to cause, reckless disregard and wanton indifference*"[731] is to attribute a mental aspect to the definition of gross negligence, which suggests subjective element in the definition of willful misconduct. The term 'reckless' is often used by the courts to denote a behaviour or conduct that is malicious or intentional.[732] The inclusion of the same standard may still leave the definition of gross negligence open to judicial interpretation. A definition that operates as a term of art by clearly setting out the legal standard has been offered in chapter three of this study. This will assist in ensuring that the operator does not pass through all the risks to the driller as this will defeat the risk and reward system that underpins petroleum operations or the proportionality element in the benefit and burden principle. It, therefore, means that where the conduct of an operator or contractor is grossly negligent, resulting in injury or death, property damage or pollution damage, such loss or harm should be borne by the party that occasioned the loss or harm. Nevertheless, this is subject to the proportion of the benefit obtained from the activity. This degree of negligence creates a distinction between mere negligence that will not result in liability and gross negligence that will trigger liability.

Under the Nigerian regime, the operator and contractor contracts examined above show that mutual indemnity is not subject to gross negligence. There is also no regulatory restriction against grossly negligent conducts. Again, the burden of the activity is not distributed according to the proportion of benefit, to discourage wrongful conducts. The burden is distributed according to ownership and control. This practice does not align with the burden element of distributive justice as canvassed in this study.

7.3 The regime for risk allocation in Indonesia

Indonesia was the first country to create the production sharing model and still applies it with some adjustments and modifications. PERTAMINA, the state oil company, has a monopoly right over hydrocarbon, thus, concessions are not awarded.[733] As a holder of the relevant right,

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[730] The care required in a highly dangerous activity such as offshore drilling.
[731] Baker 554 U.S at 512, 128 S.Ct 2605 [1990] where the Supreme viewed gross negligence as a distinct concept from, and less blameworthy than recklessness.
[732] Exxon Shipping Co. v. Baker, 554 U.S. 471, 49394, 128 S.Ct. 2605, 171 L.Ed.2d 570 [2008] where it was stated that "`*Recklessness may consist of either of two different types of conduct. In one the actor knows or has reason to know ... of facts which create a high degree of risk of ... harm to another, and deliberately proceeds to act, or to fail to act, in conscious disregard of, or indifference to, that risk. In the other the actor has such knowledge, or reason to know, of the facts, but does not realize or appreciate the high degree of risk involved, although a reasonable man in his position would do so''.*
[733] OpenOil (n 533) 88; Tengku N Machmud, 'The Indonesia Production Sharing Contract: An Investor's Perspective' (2002) 20(3) Journal of Energy and Natural Resources Law 318.

the state uses the PSC to exercise control over hydrocarbons. Indonesia is an essential producer of hydrocarbon and has tried several versions of the PSC to protect its interests in its dealing with IOCs.[734]

Law No.22/2001 regulates hydrocarbon activities in the country. It differentiates between upstream and downstream operations and requires that upstream activities be carried out via a Joint Cooperation Contract.[735] Joint Cooperation Contracts are predominantly PSC. Similar to the PSC regime in Nigeria, the contractor in Indonesia bears the costs and risks of exploration, while the ownership of the hydrocarbons remains with the state until the point of delivery.[736] Again, the PSC is granted for a period of 30 years with an option to apply for an extension.[737] The state-owned enterprise (SKK Migas) retains operational control of the hydrocarbon activities which include the approval of work plan, budgets, and field development plans, while the oil produced is shared as agreed in the PSC.[738]

As stated earlier, PSCs have been the most common type of government contract used in the upstream hydrocarbon sector in Indonesia. Under the PSC, a production split is based on specific percentages. The contractor, an IOC (who later becomes an operator of a well) can recover the operating expense through cost oil. It has the right to dispose of its share of hydrocarbon separately after the title has passed at delivery or export.[739] Under a PSC, the state-owned company is a strategic tool to further its resource ownership philosophy. However, where state NOC is engaged in petroleum operations in another country, it will do so as an IOC (contractor turned well operator), who has to engage a drilling contractor under a bargained contract. This drilling contract informs the allocation of risk between the operator and the drilling contractor. This study will now consider the risk allocation provisions as contained in the Indonesian regime.

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[734] The pursuit of the interest of Indonesia may not be unconnected with Article 33, Constitution of the Republic of Indonesia, 1945 which provides for the use of the natural wealth of Indonesia found within its jurisdiction for the benefit and welfare of the people of Indonesia.
[735] Law No. 22/2001, Petroleum and Natural Gas, Indonesia, Article 6.
[736] Ibid.
[737] Ibid Article 14 of Law No.22/2001.
[738] Oentoeng Suria & Partners and Black Dawson, 'Indonesia's Oil and Gas Law: A legal Introduction' (Oentoeng Suria, August 2011) 6 <http://www.oentoengsuria.com/wp-content/uploads/2010/11/Indonesias-oil-and-gas-laws.pdf > accessed August 23 2016.
[739] PWC, 'Oil and Gas in Indonesia: Investment and Taxation Guide' (PWC 7th edition, May 2016) 45 <https://www.pwc.com/id/en/energy-utilities-mining/assets/May%202016/PwC%20Indonesia-oil-and-gas-guide-2016.pdf > accessed August 23, 2016).

7.3.1 The Petroleum and Natural Gas Law of Indonesia, Law No.22/2001

Law No. 22/2001 sets out the framework for the exploration and production of oil and gas in Indonesia. Its main objective is the implementation of a populist economy for the welfare of all Indonesians.[740] It vests the ownership of hydrocarbons in the state and empowers the latter to control all petroleum activities. The state has the sole right of a mining concession for petroleum operations.[741] The law separates upstream operations from downstream petroleum activities.[742] It also empowers the state to exercise, among others such powers as the protection of the environment as well as ensuring environmental management.[743]

The Act does not provide for risk allocation or indemnification. Other national legislative acts deal with energy security and environmental conservation,[744] compliance with environmental quality before petroleum operations.[745] However, they do not mention risk allocation or indemnification.

Although the Indonesian regime does not expressly address risk allocation local laws in Indonesia, by implication, preclude the application of indemnity clauses as practised by the oil and gas industry.[746] Thus, a grossly negligent party may be responsible for its actions that resulted in harm or loss during offshore drilling activities.[747] Parties' freedom of contract is influenced to an extent by the general law of contract in Indonesia. An understanding of the hydrocarbon regulatory system is, therefore, key to compliance in Indonesian and other South and South East Asian countries when drafting service contracts. It is essential as non-compliance with relevant local laws can have serious implications for the contract,[748] as breaches could result in revocation of a contract under a PSC.

As stated already, it is not immediately clear from domestic legislation if parties can rely on indemnity clauses to allocate risk. However, it has been asserted that indemnities, exclusion and limitation of liability clauses, when stated expressly under commercial contracts, are

[740] Law No. 22/2001, Petroleum and Natural Gas of Indonesia, Article 2.
[741] Ibid, Article. 4.
[742] Ibid, Article 5.
[743] Ibid, Article 42.
[744] The Energy Law No. 30/2007 of Indonesia.
[745] The Environment Law No.32/2009 and Forest Law No.41/1999 of Indonesia.
[746] Cameron (n 7) 213.
[747] Ibid.
[748] Hewitt, An Asian perspective (n 656) 332.

respected and recognised by the regime in Indonesia if there is no provision to the contrary.[749] In South and South East Asia, it is not unusual for contractors to be required to have specific cover for well control and to shoulder contractual liability where contractor's acts or omissions occasioned the well pollution.[750]

In Indonesia, contracts are governed by Book III of the Indonesian Civil Code. The principle of freedom of contract is well established in this code. Article 1338 of the Indonesian Civil Code supports freedom of contract and it provides that all agreements legally made and not proscribed by law shall be applicable between the parties. There is one necessary condition: contract should not be contrary to the provisions set out in the Act regarding contracts.[751] Under Article 1320 of the Indonesia Civil Code, an agreement is valid and binding if it includes, among other requirements, a legal cause, which shall constitute the substance of the contract. Such agreement may not be contrary to regulations, laws, public order and morality. Article 1337 of the Civil Code provides that a cause is proscribed by law if it is contrary to law, public order or good morals.[752]

Concerning indemnification and risk allocation, Article 1365 and 1366 of the Indonesia Civil Code provides useful insights. The Civil Code contains adapted definitions of recoverable contractual damages, but parties may, however, supersede these definitions in their contract, and in this respect, mutual indemnities would appear enforceable under Indonesian law.[753] However, it may be impossible to contract outside some strict liability provisions, which may result in fines and imprisonment on persons responsible for a polluting activity.[754]

Article 1365 of the Civil Code presents a tort perspective that any violation of law the that leads to loss to another person would result in a cause of action to compensate the person who suffered the harm or damage. Under Article 1366, legal responsibility is envisaged for acts of omission or lack of prudence resulting in damages or losses. A broad interpretation of Article 1365 has always been applied to embrace a wide range of claims regarding any violation of the law or negligent behaviour. This broad interpretation could provide grounds for a party to be liable for gross negligence arising from a drilling contract. This legal provision evidences the

[749] DLA PIPER, 'Guide to Going Global: Intellectual Property and Technology 2015' 93 <https://www.dlapiper.com/~/media/Files/Insights/Publications/2015/02/Guide_to_Going_Global_Intellectual_Property_and_Technology_MRS000014362_Hi_Res.pdf > accessed 27 August, 2016.
[750] Hewitt, An Asian perspective (n 702) 338.
[751] Irawan Soerodjo, 'The Development of Indonesian Civil Law' (2016) 4(9) Scientific Research Journal 32.
[752] Ibid 33.
[753] Hewitt, An Asian perspective (n 702) 359.
[754] Ibid.

role of regulation in private contracts and strengthens the argument that regulators could exercise control through field approval agreements to prohibit contracts that allow gross negligence to pass as mere negligence.

Analysing Article 1365, Baker and McKenzie [755]note that the said provision makes a responsible party liable for the payment of compensation for every unlawful act causing losses to another. Although the Civil Code did not define the term "unlawful act", it can be deduced that an act is unlawful when it violates a statutory law and an unwritten norm such as reasonableness, custom and good morals. This provision of the Act is reproduced below to allow its better understanding:

Article 1365 of the Civil Code states as follows:

"A party who commits an unlawful act which causes damage and/or loss to another party shall be obliged to compensate therefor."

Article 1366 provides as follows:

"An individual shall be responsible, not only for the damage which he has caused by his act, but also for that which was caused by his negligence or carelessness."[756]

It is submitted, therefore that, although those drilling contractors that operate in Indonesia are members of the IADC,[757] it is not clear whether the IADC risk allocation and indemnification model is applicable. It is because a negligent party is obligated by law to pay compensation for a wrongful act which has led to damages or losses. It is worth noting that no specific Indonesia statute explicitly proscribes the exclusion of liability. Parties may limit their liability through carve-outs and the imposition of liability caps in their contract.[758] Parties may also exclude certain contractual liabilities under the freedom of contract principle as contained in Article 1338 of the Civil Code. This exclusion is, however, subject to the principle of good faith[759] and

[755] Baker and Mckenzie, *International Arbitration Year Book 2011-2012* (5th edn, JurisNet, 2012) 260; Rosemary Rayfuse (ed), *ICSID Reports of Cases Decided under the Convention on the Settlement of Investment Disputes between States and Nationals of other States* (Vol 1, Grotius Publications Ltd 1993) 611. It was stated in this report that under Indonesian law, any damage or loss occasioned by the act of a wrongdoer shall be compensated by the wrongdoer.
[756] The Indonesian Civil Code, Article 1365 and 1366.
[757] See <http://www.iadc.org/contractor-members/ > accesses 13 September 2016.
[758] Iswahjudi A Karim and others, 'Contracts, Negotiation and Enforcement in Indonesia: Overview' *(Karim Syah Law Firm*, October 2016) <http://us.practicallaw.com/8-634-4686?q=&qp=&qo=&qe> accessed 12 September 2016.
[759] Soerodjo (n 751) 34.

should not be contrary to laws and regulations, customary practice, and the principles of freedom of contract.[760]

Although negligence is a stronger term in tort than contract, Article 1365 of the Civil Code which covers negligence - where the wrongful act of a party that occasioned damages will give rise to liability - did not make any difference between mere negligence and gross negligence. But a look at the PSC forms of Indonesia may provide useful answers.

7.3.2 Risk allocation in Indonesian PSC forms

This study evaluated two PSCs[761] from the public domain executed by PERTAMINA (representing the Indonesian government) and other contractors. The PSCs examined cover the terms of the contract, the work programme and the rights and obligations of the parties. They also provide for cost recovery and crude oil valuation, among other things, as stated in the contract.

One provision of importance to this study addresses the issue of pollution containment. Under Section V of the PSC between PERTAMINA and Kerr McGee of Indonesia and others, which deals with parties' rights and obligation, the contractor (later a well operator) is obligated to prevent extensive pollution at sea, river or the contract area in questions. What this means is that it is the responsibility of the well operator to ensure pollution-free operation. Regulators look unto the well operator for pollution damage arising during petroleum operations. As stated earlier, the PSC assumes that the operator and the driller are vertically integrated; as a result, the well operator should be responsible for pollution harm since he supervises the well operations. Between the well operator and the drilling contractor, pollution damage is a matter of contractual bargain regarding the nature and extent of liability. This study notes that classic models should be designed to hold a party liable where his gross negligence occasions pollution damage.

It must be stated, however, that the PSCs provide no reference to negligence, gross negligence, or risk allocation. Accordingly, no useful insight is provided by the PSCs for risk allocation,

[760] Karim (n 758).
[761] These PSCs are between (1) PERTAMINA and Kerr McGee of Indonesia Inc. (operator), Quintana Indonesia Ltd, Samedan Oil of Indonesia Inc. and Wainoco International Inc. regarding the Bawean Block signed in 1981; and (2) PERTAMINA and Apex (Bengara – II) Ltd for the Bengara II block, signed in 1997. Available from <https://www.resourcecontracts.org/contract/ocds-591adf-3045742924/view#/pdf > accessed 12 April 2016.

which is the focus of this study. However, what does the private operator and contractor contract hold for risk allocation in Indonesia?

7.3.3 Risk allocation in operator and contractor private drilling contract in Indonesia

In the area of operator and contractor drilling contracts, this study only received part of a drilling contract as they were termed "confidential". It is annexed to this study and marked ***Appendix 4.*** The clauses are set out below.

17.0 INDEMNIFICATION

17.1 CONTRACTOR shall be liable for, and shall indemnify (and promptly reimburse) and hold harmless the Indemnitees in respect of, Losses arising out of or in connection with:

17.1.1 injury to or death of any CONTRACTOR Personnel or loss of or damage to any property owned or used by CONTRACTOR, Affiliate of CONTRACTOR or subcontractor due to any cause whatsoever, regardless of any breach of the Contract or any negligent act or omission by the Indemnitee, notwithstanding Article 17.2;

17.1.2 injury to or death of any person other than CONTRACTOR Personnel or the Indemnitee (in this Article 17.0, a "Third Party"), or loss of or damage to any property of a Third Party, due to CONTRACTOR's or the CONTRACTOR Personnel breach of duty or negligence, provided that if such Losses are attributable to the joint negligence of CONTRACTOR or the CONTRACTOR Personnel and COMPANY, each CONTRACTOR and COMPANY shall be responsible for such Loss to the extent of their respective negligence;

17.1.3 damage to the environment arising out of or in connection with CONTRACTOR's performance of the Contract including pollution or contamination which emanates from the equipment used by, or pollutants which are in the possession and control of or which are in transit arranged by, CONTRACTOR or any CONTRACTOR Personnel in the performance of the Contract, except to the extent such Losses are directly caused by the Gross Negligence of Company; and

17.1.4 CONTRACTOR's violation of or failure to comply with any applicable Laws or instructions given by COMPANY arising out of or in connection with CONTRACTOR's performance of the Contract.

17.2 Notwithstanding anything in the Contract to the contrary but subject to Article 17.1 and Article 17.3, COMPANY shall be responsible for, and shall indemnify (and promptly reimburse) and hold harmless CONTRACTOR in respect of Losses arising out or in connection with:

17.2.1 injury to or death of the Indemnity or loss of or damage to any property owned by the Indemnity due to any cause whatsoever;

17.2.2 injury to or death of any Third Party, or loss of or damage to any property of a Third Party, arising out of or in connection with COMPANY's breach of duty or negligence, provided that if such Loss is attributable to the joint negligence of CONTRACTOR and COMPANY, each of the CONTRACTOR and COMPANY shall be responsible for such Loss to the extent of their respective negligence;

17.2.3 pollution arising out of spills emanating from the equipment of COMPANY or its Affiliates provided such equipment is in the care, custody and control of COMPANY or Affiliate;

17.2.4 radiation damage, blowout, cratering or other uncontrolled well condition within the Area of Operations; and

17.2.5 loss of or damage to any underground reservoir or well or destruction of any property right in or to oil, gas or other mineral substance, water or geothermal resource,

except, in relation to paragraph 17.2.3, 17.2.4 and 17.2.5 only, if such Loss is the result of the negligence of CONTRACTOR or the CONTRACTOR Personnel or an Affiliate of CONTRACTOR or employees, officers or agents of that Affiliate, in which case CONTRACTOR shall be responsible for and shall indemnify and hold harmless the Indemnitees for such Losses. The CONTRACTOR's liability under this Article 17.2 shall not exceed US$1,000,000.

17.3 it is expressly agreed that neither COMPANY nor CONTRACTOR shall be responsible to the other for loss of profits, loss of use of assets, loss of revenue or similar indirect or consequential damages.[762]

From the above private contract between an operator and a contractor, it can be deduced that the practice of risk allocation is similar to other regimes examined. Parties' indemnify each other in respect of losses arising out or in connection with injury or death of personnel and property damage under their care control and custody, notwithstanding the cause or any negligent act or omission. What is different is that unlike other regimes examined, where an operator occasion pollution damage or loss from a piece of equipment under the care and control of the contractor, the operator shall be liable to indemnify contractor where the pollution arises from the operator's gross negligence. Where the Contractor's negligence results in subsurface pollution damage or loss, a cap applies to the contractor's liability.

In the contract above, the contractor's failure to comply with any applicable laws or instructions given by an operator could result in the former's liability. It means that where there is a legal requirement to perform a specific activity in a particular manner, the failure to comply with such law will result in the contractor's liability. An examination of the contract also reveals that parties are not allowed to make claims for loss of profits or any other direct or indirect loss arising from the contract. Third party liability is also borne by the party that caused the damage, albeit, where both parties jointly caused the damage, liability for the loss shall be to the extent of their negligence.

The practice of risk allocation regarding an injury to or death of personnel and property damage does not align with public policy. The contract provides that a party that causes loss or damage to another, concerning injury or death of personnel and property damage, shall be indemnified and held harmless for the loss, the cause or any negligent act notwithstanding. It means that

[762] See Appendix 4 in the annexure.

where the act leading to injury or property damage resulting from the gross negligence, is the fault of a party in the contract, the responsibility shall be borne by the party that has control or custody of the personnel or property. This non-regard to fault for injury to or death of personnel and damage to property is a disincentive for the exercise of care during drilling operations. It could encourage parties to conduct their activities in a seriously wrongful manner, thereby causing injury, death or property damage.

The contract attaches more concern to pollution damage and less to injury or death to personnel and damage to property. This position is so as the clauses dealing with pollution damage has an exception when a party's conduct will result in liability; regardless of the responsibility of the party in control notwithstanding. This practice may not be unconnected with the amount of liability which parties consider to be of vital importance. Note that this study is concerned about the behaviour (gross negligence) rather than the size of the cheque. Public policy seeks to regulate conduct that may result in damage or loss, irrespective of the amount of liability or extent of loss or damage.

On pollution damage, the contract conforms to public policy and distributive justice as it provides that the gross negligence of an operator, resulting in pollution from a piece of equipment under contractor's control, will result in operator's liability. The contractor bears similar liability when his negligence results in pollution from the well. However, the contractor's liability is subject to a stated cap. This cap is in tandem with the proportionality element in this study's adapted form of distributive justice. The cap is a contractual strategy which connects the risk and reward system as canvased earlier in this study. The proportion of benefit should reflect on the burden from the mutually beneficial activity.

In all, the Indonesian risk allocation practice is partially supportive of this study's public policy and distributive justice. It is worthy of note that other PSC regimes not discussed may have unique features; hence, the necessity for a quick summary below.

7.4 Risk allocation under PSCs: An overview

The PSCs examined above, and similar to other PSCs, do not allocate risk and liability between parties regarding damage or loss of property. Liability is allocated in accordance with the law that governs the contract or agreement of the parties.[763] The liability and indemnities clauses

[763] World Bank Institute and Governance for Extractive Industry Programme, 'Guide to Extractive Industries Documents – Oil and Gas' (*Allen & Overy*, September 2013) 16 <http://www.allenovery.com/SiteCollectionDocuments/geiprogram.pdf > accessed 13 September 2016.

of some regimes not considered in this study are quite standard. Primarily, the provisions reflect the fault-based approach, which requires the contractor to indemnify the HG against damages and losses caused by the contractor or arising from operations conducted by the latter. For instance, PSCs concluded in 2008 explicitly imposed an obligation on the contractor(s) to maintain insurance covering liability and loss, which may result from their petroleum activities.[764] Under some PSC regimes, e.g. in Angola, indemnification may flow from the HG to the contractor. Other PSC regimes include provisions on third party liability for damage during the conduct of petroleum operations, while some regimes provide for joint and several liabilities where applicable.[765] Others restrict the application of indemnity clauses to the exploration phase.[766]

Regarding risk allocation between the operator and contractor, the practice as seen in private contracts in Nigeria do not support the application of gross negligence as a carve-out. However, Indonesian private risk allocation contracts provide partial support for the application of gross negligence in pollution cases. It must be stated that the practice between operators and contractors in some PSC regimes not examined in this study support gross negligence as a liability trigger. The above position affirms this study's argument that gross negligence could be inserted in a contract as a liability trigger.[767] This inclusion in contract will check conducts that are severely awful during drilling operations and promote the exercise of care, thus, preventing conducts that are likely to cause harm to the public. Again, assuming responsibility for severely awful conducts is in tandem with public policy considerations as it would deter conducts that are likely to harm the society.

Note that there is no international regime for risk allocation. What exists is international standard forms and models such as the IADC International Daywork Drilling Contract Offshore used or adapted by IOCs in offshore drilling contracts. This study argues that the international regimes are silent on risk allocation either between operator and contractor, or government and IOC. This silence may have arisen from the powers already granted states to make laws for the regulation of offshore hydrocarbon activities under their control.

It is worth noting that under Article 11 (3) of Annex III of UNCLOS,[768] liability may arise from a joint exploration and exploitation of offshore hydrocarbon. The said Article 11 provides

[764] Hewitt, An Asian perspective (n 702) 361.
[765] World Bank Institute and Governance for Extractive Industry Programme (n 763) 17.
[766] Libya is a good example.
[767] OpenOil (n 533) 609. Ghana and Sao Tome are good examples.
[768] Ibid Article 11 of Annex III.

for a liability (burden) that is proportionate to the shares (benefit) of the enterprise of offshore activities as contained in Art. 13 of Annex III. This is in line with the proportionality element of distributive justice that the burden of a party should reflect the benefit borne from the venture. However, this provision does not relate to risk allocation between an operator and a contractor.

7.5 Conclusion

An examination of private contracts between well operators and drilling contractors shows the non-reference to fault for grossly negligent conducts. These contracts as structured, would encourage moral hazard and discourage harm-prevention. Apart from the Indonesian contract that supports liability for pollution damage resulting in harm, the Nigerian contracts examined do not make mutual indemnity subject to gross negligence. The risk allocation practice supports conducts that are severely awful and whose result could lead to harm to the public or loss on the part of the other contracting party who did not occasion the damage. Allowing the loss arising from grossly negligent conduct to be borne by another party to the contract is akin to encouraging harm on society and making the party who did not occasion the damage to bear responsibility for another's awful conduct.

The approach to risk allocation as enshrined in the Nigerian contracts presents leads to distributive imbalance and may encourage grossly negligent conduct as demonstrated by the BP Macondo disaster. A distributive balance will promote sharing of liability, harm-prevention, and forestall moral hazard in a manner that reflects the benefit they receive from the same risky venture. The inadequacy of the practice of risk allocation is evident from the contracts examined in both regimes. Ultimately, rethinking the practice of risk allocation in the oil industry, to make parties bear responsibilities for their grossly negligent conducts, is fundamental in driving a new era that applies a proactive approach to risk rather than a reactive approach. This rethinking could be achieved through contractual and regulatory mechanisms as will be discussed in the next chapter.

Chapter 8: Towards a rethink of offshore contractual risk allocation

Subjecting mutual indemnity agreements to grossly negligence conduct, for liability to apply to the party at fault, is a proactive approach to risk allocation.[769]

8.0 Introduction

Risk allocation in the oil industry has been practised using reciprocal indemnities that is without regard to fault and sometimes is not subject to gross negligence on the part of the party that caused the harm. However, the Macondo disaster prompted a re-examination of this long-standing practice, giving room for suggestions towards an innovative approach in risk allocation. This chapter aims to show the regulatory and contractual mechanisms through which mutual indemnities could be made subject to gross negligence during risk allocation in offshore drilling contracts. These mechanisms will incentivise a proactive practice of risk allocation rather than a reactive approach to risk that could result in harm to third parties and loss to a contracting party. This chapter argues that an allocation of risk behind the Rawlsian veil of ignorance will promote public interest and encourage good oilfield practice; an innovated way of rethinking the practice of risk allocation.

8.1 The corporate test for gross negligence

This test applies to determine the liability or otherwise of a corporation concerning grossly negligent conducts, thus, allowing for a higher liability on the part of the company.[770] The finding of gross negligence in most jurisdictions is to serve the purpose of deterrence and liability[771] or to compensate for injuries or harm aggravated solely because of the way they occurred.[772] Gross negligence is a corporate conduct that results in harm or loss to the public. Although it is carried out by an employee, responsibility for the act is on the corporation or company, where it ratifies or authorises the conduct of the employee.[773]

As a general rule, a company is not responsible for the gross negligence of an employee unless it authorises or ratifies the conduct of the employee who caused it.[774] However, ratification or authorization of the conduct could be indirect. If a company employ a person who is unfit to do his job, the company will be responsible for the conducts of such employee as a result of its error of judgement in employing the person. Retaining an employer after he has occasioned a

[769] Author's quote.
[770] Curtis (n 85) 829.
[771] United Mine Workers v. Patton, 211 F.2d 742 (4th Cir.), cert. denied, 348 U.S. 824 (1954).
[772] Lucas v. Michigan Cent. R.R., 98 Mich. 1, 56 N.W. 1039 (1893), and Tenhopen v. Walker, 96 Mich. 236, 55 N.W. 657 (1893).
[773] Curtis (n 85) 833.
[774] Ibid.

severely awful act has been held to be indirect ratification of the employee's action.[775] If the employee is in a position in which he has the authority to act on behalf of the employer, his abuse of authority is, by implication, abuse by the employer himself.[776] If a company's safety culture, practices and poor perception to risk encourage an employee to act in a grossly negligent manner which endangered the public, the employer would be taken to have ratified the conducts, the company will bear the liability for such gross negligence.

From the literature, the gross negligence of managerial employees of a company does not require ratification as the manager or person in position already had an authority to act on behalf of the company. Some courts have, however altered the rule somehow by removing the distinction between employees in a managerial capacity and supposed "menial" employees in the case of corporate employers.[777] Accordingly, an employer may be liable if any of its employee's conduct is grossly negligent while he is within the scope of his employment,[778] notwithstanding any other attribution standard that may apply in "traditional" common law.[779] In essence, it means that where the gross negligence of a party to the contract results in property damage, death or injury to personnel, or pollution damage, the company whose staff has occasioned the damage or loss will be held responsible.

In summary, where an employee acted within the scope of his employment, and for the employer's benefit, the company would be liable for the employee's acts of gross negligence. The emphasis is on deterrence, pressuring employers to exercise care in their recruitment exercise and employee's supervision.[780] The underpinning is that gross negligence arises from poor perception to risk, employment of persons not fit to do the job, company's poor safety and complacency culture, flawed managerial and organisational processes etc. All these could facilitate severely wrongful oilfield practices during operations that could culminate into harm or losses in the form or injury or death, property damage or pollution damage. Corporate liability for gross negligence in the oil industry relate to the above-mentioned situations, among others. As corporate conduct, gross negligence affects the public, and public policy is

[775] Coats v. Construction & General Laborers Local 185, 15 Cal. App. 3d 908, 93 Cal. Rptr. 639 (1971).
[776] Curtis (n 85) 848.
[777] Stroud v. Denny's Restaurant, Inc., 532 P.2d 790, 792 (Or. 1975); Phase 1 trial in the BP case by Justice Carl Barbier
[778] Ibid, 793.
[779] See Phase 1 trial in the BP case by Justice Barbier where he stated that "*the court need not need not determine whether BPXP authorized or ratified the conduct, or whether Vidrine and Hafle (or any other BP employee) were "managerial agents," or any other attribution standard that may apply under general maritime law, "traditional" common law, or any other law or jurisdiction".*
[780] Curtis (n 85) 847.

concerned about the harm to society, which results from serious wrong, hence the deterrence and liability postulation.

Gross negligence as corporate conduct was captured in the Chief Counsel's report on the Macondo spill. The Chief Counsel stated that the underlying technical and management causes of the Macondo oil spill in the GoM reveals that management failures formed the foundation for all the technical failures.[781] For instance, the report states that "*BP's decision to use a long string production casing increased the difficulty of achieving zonal isolation during the cement job. While the decision did not directly cause the blowout, it increased the risk of cementing failure. Again, BP's decisions to include rupture disks and omit a protective casing from its well design complicated post-blowout containment efforts"*.[782]

There is also evidence that workers were poorly supervised. They were allowed to do things as they wished. These are examples of a flawed organisational and managerial process which resulted in death and injury, damage to property, and pollution damage. The report also captures other serious management failures as opposed to common errors, which contributed to the disaster at Macondo. The serious nature and extent of management failures qualified the conducts as "gross negligence", thereby enabling the court to hold that gross negligence has occurred.[783]

8.2 Risk allocation in the oil industry: Analysis and discussions

The general practice of risk allocation in the oil industry as already discussed indicate that participants focus on responsibility for a harm or loss when the risky activity has resulted in a downside. Their focus is not on how the allocation of risk could lead to good oilfield practice that could help prevent the risk of harm during a drilling operation. Risk allocation denotes the anticipation of an accident. The prevention of harm through contractual strategies is vital in averting or reducing the possibility of the risk of death, injury, property damage or pollution damage. As was indicated in the Macondo and Montara Commissions' reports, parties only took steps to avoid the risk of harm that could result in liability to them and not to others. Such lack of care could result in the exercise of grossly negligent conducts. Moreover, when sued by any of the injured parties, the party at fault still receive an indemnity for the claim against

[781] Chief Counsel Report (n 86).
[782] Ibid, 35.
[783] Phase 1 trial of the of the BP case (n 85).

him, from the party with the contractual responsibility. What this means is that mutual indemnity has been used as a shield against liability for gross negligence.

While the practice of risk allocation focuses on who bears responsibility for the harm or loss, it is vital that incentives and strategies that could promote good oilfield practice to reduce or prevent the harm or loss, are put in place. These will facilitate harm-prevention and deterrence philosophy of public policy. Incentives could be mainstreamed into the contract to facilitate good practices that could reduce the incidence of harm to society and loss to a contracting party. The aversion to risk in the oil industry is because of risk exposure. Incentives that reduce exposure to liability could address the aversion to risk. One approach to solving this issue would be to make mutual indemnity subject to the exception of gross negligence so that parties cannot contract outside this practice. As seen from the classic models and private contracts in this study, mutual indemnity for injury, damage to property and pollution damage still apply without regard to gross negligence.

The rationale for introducing the proposed changes in the classic model stems from the conclusion that the current practice does not create an incentive to exercise care. It puts a contractually responsible party in a position where he accepts liability for loss or harm arising from the gross negligence of another party. This risk allocation practice runs contrary to public policy, which is usually interested in deterrence and liability for acts of gross negligence, which result in harm or damage to others. Where a party indemnify against another party's gross negligence, the public policy goal of responsibility for wrongdoing will not be realised, if the negligent party walk away free. The risk of accidents could increase if the motivation to prevent an accident is absent. In essence, it will undermine the philosophy in public policy and distributive justice should a party contract out its gross negligence.

In the law of contract, a party is not allowed to benefit from its wrong, following the Latin Maxim *ex turpi causa non oritur actio*. It simply means that you have to fix your fault. Albeit, in specific sectors such as the oil industry, certain agreements could be entered into by parties and incorporated into the contract to balance risk and reward. The concept of freedom of contract allows it. The peculiar nature of the oil industry and the economic efficiency in public policy could allow indemnification for mere negligence. This efficiency idea will align with the business benefit idea of the oil industry.

Public policy limits the application of freedom of contract. As earlier noted in this study, freedom to contract exist within the confines of public interest or public policy. To allow gross

negligence to pass as mere negligence, would undermine the entire essence of deterrence, responsibility and liability for severely awful behaviour that could cause harm or loss. It means that deliberate or severely awful conducts will go unpunished, contrary to public policy. However, when indemnity agreements are subject to gross negligence, certain conducts result in liability, to achieve the public policy goal. The importance of this proposed model lies in the fact that it will promote a proactive rather than a reactive approach to risk allocation and management, thus, reducing the possibility of harm to society and avoiding a situation where a party must be responsible for the gross negligence of another party.

There are two broad aspects of public policy generally aimed at protecting society. The first aspect is that it seeks to discourage conducts or bad oilfield practices, either private or public, which could result in the risk of harm to the public,[784] or loss to a contracting party. Public policy will not promote a practice that would have a party to take responsibility for the seriously wrongful act of another party. The public policy behind oil and gas regulations and good international practices is for the protection of society against harm. Even when certain conducts are permissible, grossly negligent conducts are not, as they could encourage moral hazard and facilitate the exercise of less care. In drilling contracts, public policy would encourage good oilfield practice that will reduce the risk of harm/loss to contracting parties and the public.

As already stated above, public policy may allow mere negligence, which results in harm during drilling operations, but grossly negligent conducts could encourage moral hazard and deliberate misconducts. Even among co-ventures', any harm or loss resulting from the gross negligence of the operator, is assumed by the operator alone. Where it is mere negligence, other operators contribute according to their respective shares to compensate for the loss. This study notes that the nature of drilling operations is one that is highly likely to cause harm to the environment or society. To allow gross negligence to go without liability on the party that caused it is to promote bad oilfield practice that could cause harm to the public.

The call for deterrence or liability for grossly negligent actions arises from the need to protect the society from harm and the recognition that parties who benefit from a risky activity should also bear the burden when they are causally connected. In this regard, distributive justice proposes the bearing of burden, in the proportion of the benefit gained from the activity in question. Since the risk allocation practice of the industry is not structured to deter wrongful conducts or protect parties to a contract or the public from loss or harm, it could be considered

[784] Ghodoosi (n 327) 711.

contrary to public policy and distributive justice. It is so as it still allows a party to take the benefit of the mutual indemnification even in the face of gross negligence by the party at fault. A typical example is the BP and Transocean contract.

It is worth noting that the existing scheme has an accident prevention arrangement in it. This study is not changing that. What this study is canvassing is that, if a party occasion gross negligence, the indemnity which is given by the other party will no longer be functional. This non-functional indemnity will act as an incentive for good oilfield practice that could prevent an accident. In other words, this aspect of public policy put the incentive to prevent accident in place, which is that a party that causes gross negligence will be liable up to a stated amount. The consequence of including financial liability for gross negligence is to prevent gross negligence in the first place.

The second aspect that public policy seeks to protect is the right of victims to receive compensation and have their environment cleaned up. The payment of compensation and clean-up is an aspect of public policy that every law upholds. Note that risk allocation does not preclude clean-up and the payment of compensation to victims of drilling operations. The operator is responsible to the government in terms of clean-up and compensation. If the operator gets any amount from the contractor's gross negligence, it is only to discourage harmful practices and make the drilling contractor assume liability in some way, shape, or form, for its gross negligence. The essence is not for the drilling contractor to assume full liability for clean-up or compensation, it is for the drilling contractor to exercise care during drilling operations as its conduct may result in liability for gross negligence.

Public policy would require the party that caused the liability to have some skin in the game and not to leave the entire payment to the party that did not cause the harm. The industry practice merely focused on the second aspect of public policy rather than the two core aspects - deterrence and liability, and compensation. These are vital tools in avoiding harm or loss, especially in drilling operations. Again, public policy would not validate an agreement to trade-off gross negligence as to do so would mean an implied endorsement of harmful practices, which might affect the public. The trade-off only exists for negligence and not gross negligence. The trading-off of negligent conducts is the foundation of mutual indemnity agreement in the oil industry.

The cliché "prevention is better than cure" aptly captures the need for risk allocation to encourage prevention of harm rather than settling claims of compensation. This study notes

that the oil industry practice of risk allocation is overwhelmingly reactive rather than proactive in terms of its approach to risk. It is structured to respond to liability rather than incentivise good oilfield practices that could prevent harm during drilling operations. In responding to risk, the practice places responsibility on a party that has not occasioned the harm. The mutual indemnity should take into account the gross negligence of the party that has caused the harm. In order to achieve this, contractual measures could be put in place through incentives, to avoid the risk of harm to society or loss to a contracting party. Other incentives, such as loss of tools, re-drill, etc., could be explored to the advantage of parties.

8.3 Rethinking the practice of risk allocation in the oil industry

8.3.1 The regulatory mechanism

Regulation has a role to play in ensuring that a party who has occasioned gross negligence bears the burden in a drilling contract. While the anti-indemnity statutes in some states in the US must be commended, they only address negligence and not gross negligence. The anti-indemnity statutes still allow exceptions that permit a party to benefit from gross negligence, while federal legislation is silent on this matter. Although Louisiana has passed anti-indemnity legislation, BP and Transocean contracted in accordance with, among other laws, Louisiana state laws. Albeit, gross negligence was not a trigger for liability in their drilling contract. There is an apparent lacuna in the law which calls for stronger regulatory support to proscribe the use of gross negligence in indemnity agreements as a protection against liability. The regulatory check during the award of licences may be considered a possible way to discourage the non-recourse to a fault in cases of grossly negligent conducts. When this is done, courts will give effect to the regulation in case of violation. In the absence of any vitiating element in a contract, the court will give effect to it, as contracts should be seen to respect public policy norms.

For regulation to play its role in making mutual indemnity subject to gross negligence, the latter should apply as a sword and not a shield to the party who caused the wrong. As a sword, it will operate as a means through which a party at fault will indemnify the other party or circumvent a waiver of liability on the part of a party who seeks to take advantage of the indemnity agreement. Regulation could help public policy facilitate the use of gross negligence as carve out in indemnity agreements to prevent parties from causing harm to themselves or others

through their wrongful conducts during drilling operations. This strategy could be achieved using the oil and gas law, model Clauses or model PSCs.

It is the regulator who approves the IOC (well operator) for field development, upon satisfaction that the relevant conditions for field development have been satisfied. Depending on what stage the field development plan is submitted (before or after the grant of license), the regulator could require the IOC (well operator) to commit not to enter into certain agreements. An IOC may be restricted by law or regulation from contracting either by itself, agents, group, with any person, contractor, or sub-contractor, either directly or indirectly requiring any party to take responsibility for the gross negligence of another party during drilling operations. A clause such as this could be included in the model clause or model PSC.

In the UK, the license incorporates the model clause by reference since it is a standard for agreement between an HG and a well operator. It could also include the proportionality element of distributive justice by providing that the proportion of parties' respective stake shall guide their liability in their agreements. When inserted in the model clause/model PSC between HG and the well operator, it becomes effective to guide the desired behaviour and produce the necessary outcome.

In the UK for instance, to implement the strategy of maximising economic recovery (MER), every field development plan must show that it contains procedures on how the MER strategy could be achieved, among other things, before being granted field development approval. The well operator must show evidence of compliance.[785] Similarly, the idea of gross negligence as canvassed in this study could be incorporated into model contracts or agreements, to guide the relationship between a well operator and a drilling contractor.

In the UK, the regulator (Oil and Gas Authority, OGA) implements the UK strategy by setting out conditions for each licence in the regulation (Model Clause). Each licence takes the form of a deed, which binds the licensee to obey the licence conditions.[786] To get a development and production consent from OGA, the licensee must submit a field development plan (FDP). For OGA to give consent to the FDP, it must be satisfied that all relevant guidelines and regulations

[785] Oil and Gas Authority (OGA) 'Exploration and Production: Field Development Plans' <https://www.ogauthority.co.uk/exploration-production/development/field-development-plans/ > accessed 2 September 2017.
[786] Oi and Gas Authority, 'Licensing and Consents: Overview' <https://www.ogauthority.co.uk/licensing-consents/overview/ > accessed 2 September 2017.

have been followed.[787] To achieve the proscription of gross negligence in offshore drilling contracts, one of OGA's regulations to be satisfied could be that the licensee shall ensure that no person executes a contract or subcontract that purport to indemnify another for harm or loss arising from gross negligence during drilling operations. OGA or the relevant authority could seek to know the driller and the nature and extent of the drilling agreement as it relates to risk allocation. Anything done outside the licence will be a violation of the licensing condition and could result in the withdrawal of the licence. The above strategy could also be implemented in operator and contractor drilling agreements to enforce the exercise of care.

This study notes that the objective of every regime governing oil and gas production is to prevent environmental damage and protect the public from the externalities of petroleum operations. To have a party at fault assume the burden of its gross negligence is to discourage serious conduct resulting in harm and to enforce public policy for societal protection. It is a viable way of enforcing this restriction (gross negligence) without making a drilling contractor a duty holder, even though he carries out the actual drilling as the owner of the offshore installation for the operator.

The operator, as the duty holder for the offshore installation, is also the well operator, since he has been appointed to conduct the planning or execution of the well operations. It is not the role of drilling contractors. Operators carry out the work programme of the well operator. As has been stated, the well operator is still the duty holder while the drilling contractor is responsible, under the contract, to the operator. If a drilling contractor is made to be responsible to the regulator or government in this situation, it will amount to making the drilling contractor a duty holder or an equity partner. Even under the Offshore Petroleum Licensing (Offshore Safety Directive) Regulations 2015, the driller is not recognised as a well operator for the regulation, as he does not plan or execute well operations.[788]

An attempt on the part of regulators to also hold contractors liable for well pollution would be a shift from the long-held position that regulators look unto operator/licensee on liability issues.[789] This move by regulators could change the concept of a duty holder. The long-standing industry practice stems from the fact that it is the operator which negotiates with the regulators and pledges to particular well design and well programme, and other safety/environmental

[787] Oil and Gas Authority, 'Requirements for the planning of and consent to UKCS Field Developments' May 2018 <https://www.ogauthority.co.uk/media/4867/fdp_guidance_requirements-document-may-2018.pdf > accessed 2 September 2017.
[788] The Offshore Petroleum Licensing (Offshore Safety Directive) Regulations 2015, sections 2, 5 and 6.
[789] Cameron (n 7) 207.

conditions. The operator acts as the principally responsible party for selecting and approving contractors, exercising control of the operations of contractors on the well site and ensuring that the contractors have duly accomplished the results of the work plan results of the work plan.[790] All the driller does is carrying out its task and complying with the operator's instructions.

From the above, one could see the underpinning for leaving the responsibility of well pollution on the operator, the negligence of the other party notwithstanding. However, to allow gross negligence to thrive in drilling operations would run contrary to public policy and distributive justice. Public policy and distributive justice would require a party to assume responsibility for its gross negligence as opposed to a blanket application of indemnity agreement. The essence of the required responsibility is to promote good oilfield practice that could help in preventing harm to third parties, deter negligent behaviour, and distribute the burden of mutually beneficial but harmful activity according to rewards of the activity. The emphasis here is not on "*mere*" negligence neither is this study proposing enforcement of a tortious act using a contract. What is being discouraged here is serious wrongful conduct (gross negligence). It is worth noting that what constitutes gross negligence, as discussed here, is not based on the amount of money or claim. It is defined by reference to the seriousness of the wrongful conduct rather than by the scale of the loss or amount involved.

Enforcement of public policy and distributive justice in indemnity contracts would create a deterrent effect that will result in more effective care,[791] as the social costs of gross negligence would be allocated to the causal source(s) of the risk, thereby creating incentives for precaution.[792] It has been argued that a non-distributive liability is inefficient as it will impact the incentive for care when liability is assumed to a single party.[793] An efficient liability rule enables the allocation of risk among parties causally connected to the harm, and this is in tandem with the principles of Coase theorem.[794] Sole liability is a disincentive for prevention.

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[790] Ibid.
[791] Guido Calabresi, 'Some Thoughts on Risk Distribution and the Law of Torts' (1961) 70(4) Yale Law Journal 499.
[792] Michael Faure, 'Environmental Liability' in Michael Faure (ed), *Tort Law and Economics* (Edward Elgar Publishing Ltd 2009) 231.
[793] Borre Vanden, 'Channelling of Liability: A Few Juridical and Economic Views on an Inadequate Legal Construction' in N.L.J.T Horbach (ed.), *Contemporary Development in Nuclear Energy Law: Harmonizing Legislation in CEE/NIS* (Kluwer Law International 1999) 13. When liability is applied to the operator alone and the operator becomes 'judgment proof', victims would be unable to sue other parties who were causally connected to the risk or influenced the risk. Hence the incentive for prevention will be diluted and victims may go uncompensated.
[794] Faure (n 792) 260.

The incentive to reduce harm would only arise where the actors share in the cost of the harm they caused.[795] The sharing of the cost of the harmful conduct will be based on the proportion of the benefit each party obtained from the activity in question.

Although the legal responsibility for environmental protection and preservation of pollution damage rest mostly with the operator, it can still enter into such an arrangement with a drilling contractor which would specify the circumstances under which a drilling contractor will be liable. The nature and extent of such liability should reflect the public policy concerns and distributive justice. Moreover, parties will still have an incentive to monitor the behaviour of each other during drilling operations.[796]

In all, this proposed transformation of the existing approach in a post Macondo era should discourage moral hazard, incentivise harm prevention, and promote mutual monitoring through risk distribution. Primarily, a new standard of behaviour could be applied to put under control, types of conduct that "*fall far below*" the standard of a reasonable person. It will be negligence to drive at 35 miles per hour (MPH) in a built-up area of 30 MPH. It will, however, be gross negligence to drive at 100 MPH hour in the same area. The emphasis is on the extent; conduct that falls far below what is reasonably expected. An understanding of gross negligence from the point of its usage as a tool to discourage moral hazard in drilling operation will help in its application as a carve-out for liability to attach to the party at fault. The focus is on seriously wrongful conduct, which results in harm or loss, and mere negligence which will not lead to liability. This is the whole point of this thesis, gross negligence and not mere negligence.

8.3.2 The contractual strategy

The primary purpose of every commercial activity is to make a profit.[797] No business wants to assume loss or take responsibility for a loss that will lead to its reputational damage in a globalised world.[798] Regarding damage to man and his environment, society tends to pass a

[795] Giuseppe Dari-Mattiacci and Luigi A Franzoni, 'Innovation and Negligence Rules' (2014) 16(2) American Law and Economics Review 337.
[796] Kip W Viscusi and Richard J Zeckhauser, 'Deterring and Compensating Oil-Spill Catastrophes: The Need for Strict and Two-Tier Liability' (2011) 64 Vanderbilt Law Review 1742.
[797] Milton Friedman, 'The Social Responsibility of Business is to Increase Profit' (*The New York Times Magazine,* September 13 1970) < http://www.nytimes.com/1970/09/13/archives/a-friedman-doctrine-the-social-responsibility-of-business-is-to.html?_r=0 > accessed 16 December 2016.
[798] Erin O'Connor O'Hara, 'Organizational Apologies: BP as a Case Study' (2011) 64(6) Vanderbilt Law Review 1960. Immediately after the Macondo spill, BP share price plummeted as the world passed a moral judgement on BP for the spill at the Gulf of Mexico.

"*kill him*" judgement on the responsible party. Risk allocation, therefore, deserves special attention in the offshore oil industry. In this regard, this study proposes an incentive-driven contract that distributes risk in a manner that could encourage safe drilling and mutual monitoring.

8.3.2.1 Liability subject to the proportion of benefit

This study suggests that regulation should prohibit gross negligence so that the indemnitee will take responsibility for its conduct, while the burden should reflect the benefit gained from the potentially harmful activity. This approach is consistent with the deterrence and liability philosophy in public policy and accord with the proportionality element of distributive justice. Parties would have to stipulate in their contract that liability arising from gross negligence will be assumed by the party at fault, subject to the proportion of the benefit from the activity.

Losses above the proportion would then be assumed by the party who has control over the activity and associated risk. Bearing losses above the proportion will make the risk allocation practice more consistent with public policy, distributive justice, and reflect the liability underpinning in the oil industry. This study notes that the scale of the loss or the size of the cheque does not determine gross negligence. It is the conduct of the party at fault, viewed with the lens of good oilfield practice, that determines gross negligence. Public policy would regard severely awful conducts as grossly negligent since they could cause harm or loss to the public.

This contractual practice will create an obligation for a party at fault to bear responsibility for its wrongful conduct. The obligation will induce the exercise of care and discourage moral hazard as it supports partial exposure to liability.[799] The proportion of the liability could be a stated amount; a stated percentage or derivable from the value of the contract to the drilling contractor. This approach should change the existing industry practice where the party at fault takes no responsibility at all for gross negligence, but benefits from the mutual indemnity agreement, the gross negligence notwithstanding. This study notes that allocating risk in the manner that makes mutual indemnity subject to gross negligence, will also reflect risk and reward in petroleum operations, which is linked the proportion of benefit and burden from the activity.

[799] Faure and Hartlief (n 93) 684.

8.3.2.2 Indemnity

As stated earlier in this study, mutual indemnity will be used as a sword. That is, where a party's gross negligence results in damage or loss, he indemnifies the other party, for the loss he caused the party, subject to his benefit. In other words, where an operator is grossly negligent, he indemnifies the contractor to the extent of the agreed proportion and vice versa. Mutual indemnification for injury, property damage, and pollution damage would, in this way be subject to gross negligence on behalf of the party that occasioned the harm. Standard mutual hold harmless clauses, which is between contractors, will also be subject to gross negligence under this proposed practice. It is worth mentioning that standard holds harmless clauses only operate in the UK and relates to people and property but not pollution. It is used by contractors and not between operators and contractors. Where no agreement exists between contractors, the IMHH could be relied on as a background agreement. [800]

An example of how mutual indemnity could apply in contracts is shown below. Although the act of gross negligence is regarded as corporate misconduct which results in corporate responsibility, the actual conduct could come from employees, affiliates, group members, or persons who have authority to act on behalf of the contractor or operator. The contractor or operator is vicariously liable for the acts of their employees while working for them. As already stated, the gross negligence of an employee, when ratified or authorised,[801] or where the employee acted within the scope of his employment and for the employer's benefit, the employee's act is the act of the employer for which it could be liable for acts of gross negligence resulting from the employee's act.[802] This liability is so because the employee's conduct is presumed to arise from poor supervision, company's poor perception to risk, serious management failure, and etcetera, thus resulting in harm or loss.[803]

If the employee is in a position in which he has authority to act on behalf of the employer, or act with supervision from another, his conduct is, by implication, the conduct of the employer himself. If in the exercise of that authority, the employee acts in a grossly negligent manner and thereby injures a person, damages property, or causes pollution damage, the employer will be liable to indemnify the other party to the contract. Albeit, the indemnification will be to the extent of the benefit from the activity.

[800] LOGIC, 'IMHH' available from <https://www.logic-oil.com/imhh> accessed 20 January 2016.
[801] Curtis (n 85) 847.
[802] Ibid, 848.
[803] Phase 1 Trial (n 85).

It means that where, for instance, an employee of the operator, out of his gross negligence, causes damage to the property of the contractor or injury to the latter's employee the operator will be liable for such consequences, arising from the gross negligence of its employee. Although the employee is the contractor's employee, albeit, as proposed by this study, the operator will be responsible for whatever loss or injury the contractor or its employee suffered. He will not be allowed to use contractual responsibility as a shield; neither will the operator be held harmless for the damage to the property of the contractor. The operation of the practice will be vice versa. As a result, the deterrence and liability underpinning of public policy will be realised.

Liability will be based on the fact that either the company's poor risk perception, inadequate supervision of employees, management failure, or engaging an unfit person, had facilitated the employee's conduct which fell far below the required standard that could be exercised in the circumstance. This strategy could facilitate the exercise of care that may prevent harm, injury, damage, or loss. In this way, the public policy of preventing harm to society will be part of the risk allocation practice, and the distributive justice of bearing a proportion of the burden of severely wrongful conduct in an activity that produces benefit will be achieved.

A rethink of the practice of risk allocation is desirable as the present practice focuses on a remedial approach to risks rather than a preventive approach, founded on an incentive-oriented regime for preventing harm or loss. The suggested approach in this study is proactive and incentive-oriented, achievable through regulation, which can be set out in the oil and gas law, model clauses or model PSCs and incorporated into field agreement by reference. It could also include the proportionality element of distributive justice by providing that the proportion of parties' respective stake shall guide the liability between parties in their agreements.

Risk sharing is an efficient liability principle that incentivises prevention as parties will act as checks to themselves, with a duty to report harmful oilfield practices. In this regard, some scholars note that "*a possible approach could be to obligate drilling contractor, well service contractors and other non-operators to assume some regulatory duty such as reporting unsafe practices to regulatory bodies"*.[804]A contractual obligation such as this could complement safety regulations. For instance, in the UK, the offshore safety directive requires an operator of

[804] Anderson and Lowe (n 64).

a block, field or well to report safety and environmental concerns from any source relating to offshore oil and gas operations.[805]

8.3.3 The veil of ignorance, public policy and contractual risk allocation

8.3.3.1 The veil of ignorance explained

The veil of ignorance, like several thought experiments, may never be carried out in the ordinary sense. It is an abstract concept that can be applied when dealing with issues relating to fairness. Its essence is to explore ideas about justice, equity, morality, and social status in an organised manner. The veil of ignorance is an aspect of social contract theory which allows scholars to test ideas for fairness in the society and also in the contractual practice of risk allocation by participants in the oil industry**.**

Behind J. Rawls hypothetical veil of ignorance, no one knows who they are. They are unaware of their privileges, their class, their difficulties or even their personality.[806] The unique features of their psychology such as their aversion to risk or liability, and the circumstances of their own society are unknown to them. Their existence is akin to an impartial group, charged with designing a new practice or society with its concept of justice. The veil partially masks people's consciousness and knowledge of the consequences of their actions. Thus, leaving them to make decisions without knowing how it will affect them.

As far as possible, the only specific facts which the parties know is that their society is subject to the conditions of justice whose outcome is fair to all. Behind the veil of ignorance, decisions are reached in the interest and happiness of all. The veil of ignorance sets up a procedure that will be fair to all – operators, contractors, government, society. As a result, specific contingencies which place people in a position where they are free to exploit social, contractual, and natural circumstances to their own advantage, are nullified. For instance, where a clause exempts a party from liability for gross negligence, such clause will be unenforceable because it allows a party to use a contractual provision to its own advantage. Parties must choose principles the outcome of which they are ready to live with irrespective of the generation they turn out to belong to**.**

As a cognitive test, the veil of ignorance is influential because society's views regarding what is fair and unjust depend on society's experiences and the situation people find themselves. On

[805] The Offshore Installations (Offshore Safety Directive) (Safety Case etc.) Regulations 2015, s.31.
[806] Rawls, A theory of Justice (n 22)

the other side of the veil of ignorance, none of that situation exists.[807] Strictly, the subsequent society, idea or practice should be a fair one to all. Some scholars have provided a useful guide to understanding the test of fairness behind a veil of ignorance**.** Michael Shermer notes that "*The Fairness Principle: When contemplating a moral action, imagine that you do not know if you will be the moral doer or receiver, and when in doubt err on the side of the other person."*[808]

In a similar vein, Spencer J. Maxcy notes: "*Imagine that you have set for yourself the task of developing a totally new social contract for today's society. How could you do so fairly? Although you could never actually eliminate all of your personal biases and prejudices, you would need to take steps at least to minimize them. Rawls suggests that you imagine yourself in an original position behind a veil of ignorance. Behind this veil, you know nothing of yourself and your natural abilities or your position in society. You know nothing of your sex, race, nationality, or individual tastes. Behind such a veil of ignorance all individuals are simply specified as rational, free, and morally equal beings. You do know that in the "real world," however, there will be a wide variety in the natural distribution of natural assets and abilities, and that there will be differences of sex, race, and culture that will distinguish groups of people from each other".*[809]

The fact that people are unaware of the part of the society they will belong, the logical belief is that the veil of ignorance will elicit an egalitarian and fair society as no one want to belong to a disadvantaged group. Cognitive prejudices fade away behind the veil of ignorance and thought prejudices melt away. The imaginary people are rational thinkers. They use probabilistic thinking to assess the possibility of their being affected by any preferred measure.[810] These imaginary thinkers hold no opinions for which to require validation. They also do not have any newly learned information to focus their attention on. The only inducement they are prejudiced towards is their survival, which is equal to the protection of the entire group. They cannot disadvantage any given group as they could be part of that group.

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[807] Ibid.
[808] Michael Shermer, *The Moral Arc: How Science and Reason Lead Humanity Toward Truth, Justice, and Freedom* (New York: Henry Holt and Co., 2015)
[809] Spencer J. Maxcy, *Ethical School Leadership*, (Maryland: Rowman & Littlefield Education, 2002).
[810] Farnam Street, 'The Fairness Principle: How the Veil of Ignorance Helps Test Fairness' <https://fs.blog/2017/10/veil-ignorance/> accessed 26 April 2019.

According to Rawls, the decision of these people behind the veil will be for all to possess rights and liberties, power and opportunity, income and wealth, and the conditions necessary for self-respect. For these circumstances to take place, the people behind the veil of ignorance must find out how to attain the components of justice which are: *everyone must have the best possible life which does not cause harm to others, everyone must be able to improve their position, and any inequalities must be present solely if they benefit everyone*.[811] The veil of ignorance, as a cognitive experiment, indicates that ignorance is not always unfavourable to society. In certain circumstances, it can lead to vigorous social structures**.** Behind the veil of ignorance in risk allocation, not knowing where one might be - as an operator, contractor, or part of the general public - would one allow a party to walk free from his grossly negligent conduct, after allowing his negligence to go without liability? Would a person design a contract that gives another person unquestionable leverage to harm him? The veil of ignorance could also be used to test whether a law or practice is fair.

8.3.3.2 Hypothetical application of the parameters of justice and public policy in risk allocation

In designing the risk allocation practice behind the veil of ignorance, the positions of the parties, and how the contract may affect them is worthy of note. On the other side of the veil, we will have a group that will be the government. They issue the required permit to the operator to explore and exploit oil. Their interest will be for the operator to conduct its operations according to law, and to ensure an accident-free drilling activity, with zero harm to man and the environment. The other group will be the operators' group, who has the responsibility under state law to conduct the operations as required by law and to assume liability from the government when things go wrong. The operator is responsible to government as the holder of the permit or as the person in-charge of the operation. The contractor has no direct link to the government. The contractor is answerable to the operator who hired him. When there is a spill or damage during petroleum operations, it is the operator that answers to government and not the contractor. Where contractor is grossly negligence, he settles the operator as per their contract. Operators get the financial upside upon successful operation, as a result, they assume more liability. There is also the contractors' group, whose interest is a successful drilling and a financial reward in the form of day rate. Contractors will not like to assume responsibility for certain risks when they are negligent or grossly negligent, because they are not in charge of the

[811] Rawls A Theory of Justice (n 22) 181.

operations, and they do not get any financial upside like the operator. Freedom of contract allows them to enter into such an agreement. However, they are the ones who put their hand on the saddle to get the work done.

There is the last group, the public, who will be affected by the petroleum operation should a downside occur. Their interest is for the petroleum operations to be carried out in such a manner as would not impact their livelihood or cause harm to them. They would not like the actors in the matrix to encourage practices that should affect them. Public policy protects their interest. Remember, Rawls stated that the parties behind the veil are unaware of which position or group they will belong to when the veil is lifted, and the law or practice applied. With this in mind, how will the parties design a risk allocation contract, taking into cognisance the interest of all the parties by ensuring that people live the life they desire without harming others? How will those behind the veil ensure that everyone can improve their position and that if inequality exists, it will be in the interest of all and not a group?

In addressing the issue of the use of mutual indemnity as a shield against liability for gross negligence, this study, with the Rawlsian veil of ignorance in mind, asks whether a person behind the veil of ignorance would design a contract that allows a party to walk away after he has occasioned gross negligence. From the Rawlsian philosophical thought, not knowing which group one might belong, those behind the veil of ignorance would design a risk allocation that is fair and beneficial to all, without encouraging practices that will result in harm to anyone.

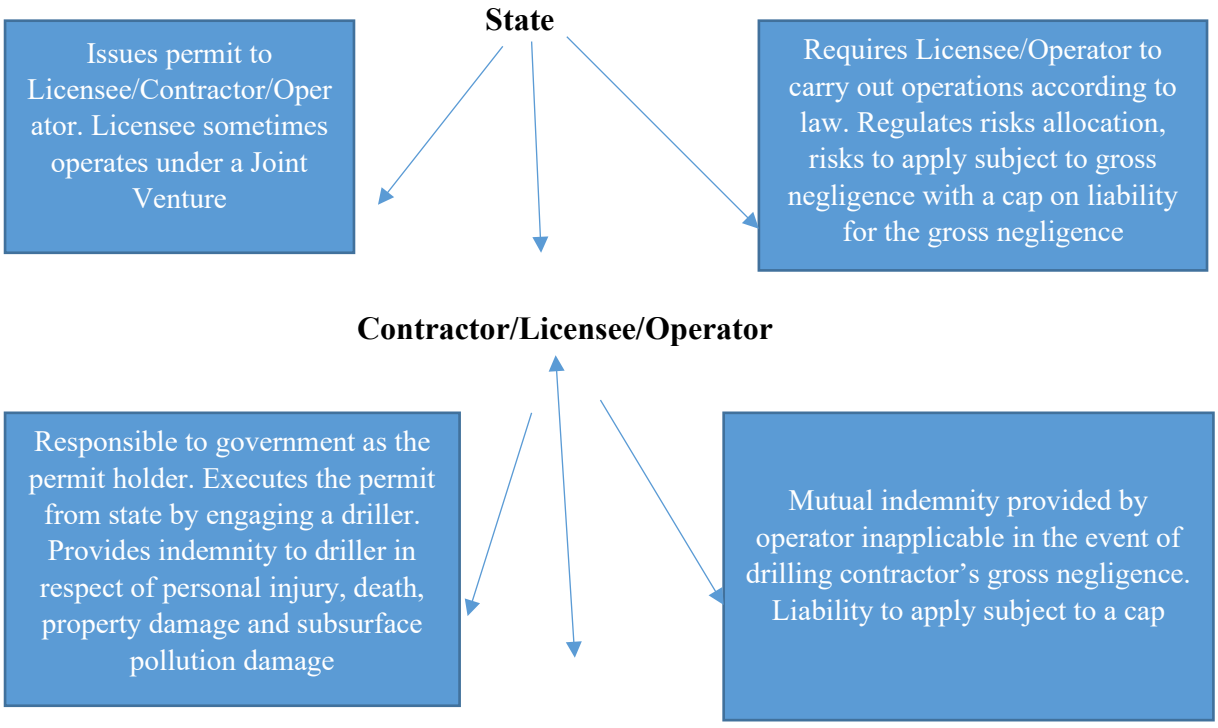
With the aid of public policy, the fairness and proportionality elements of distributive justice, and the Rawlsian philosophical underpinning, this study proposes a guide in the design of mutual indemnity contracts in the oil industry. It should be stated in the oil and gas law or the model PSC/Clause that gross negligence shall result in liability during petroleum activities between the operator and the contractor. This clause will ensure that a party does not take responsibility for the gross negligence of another party. It will be unfair for a party to be responsible for the severely wrongful conduct of another party. However, the liability shall be assumed up to a stated cap to reflect the positions of the (operator and drilling contractor). The essence is to make the requirement mandatory and to de-incentivise the conduct and facilitate or promote the interest of the government and the public. The risk allocation practice will allow mutual indemnity to shield liability for negligence, but in the event of gross negligence, the

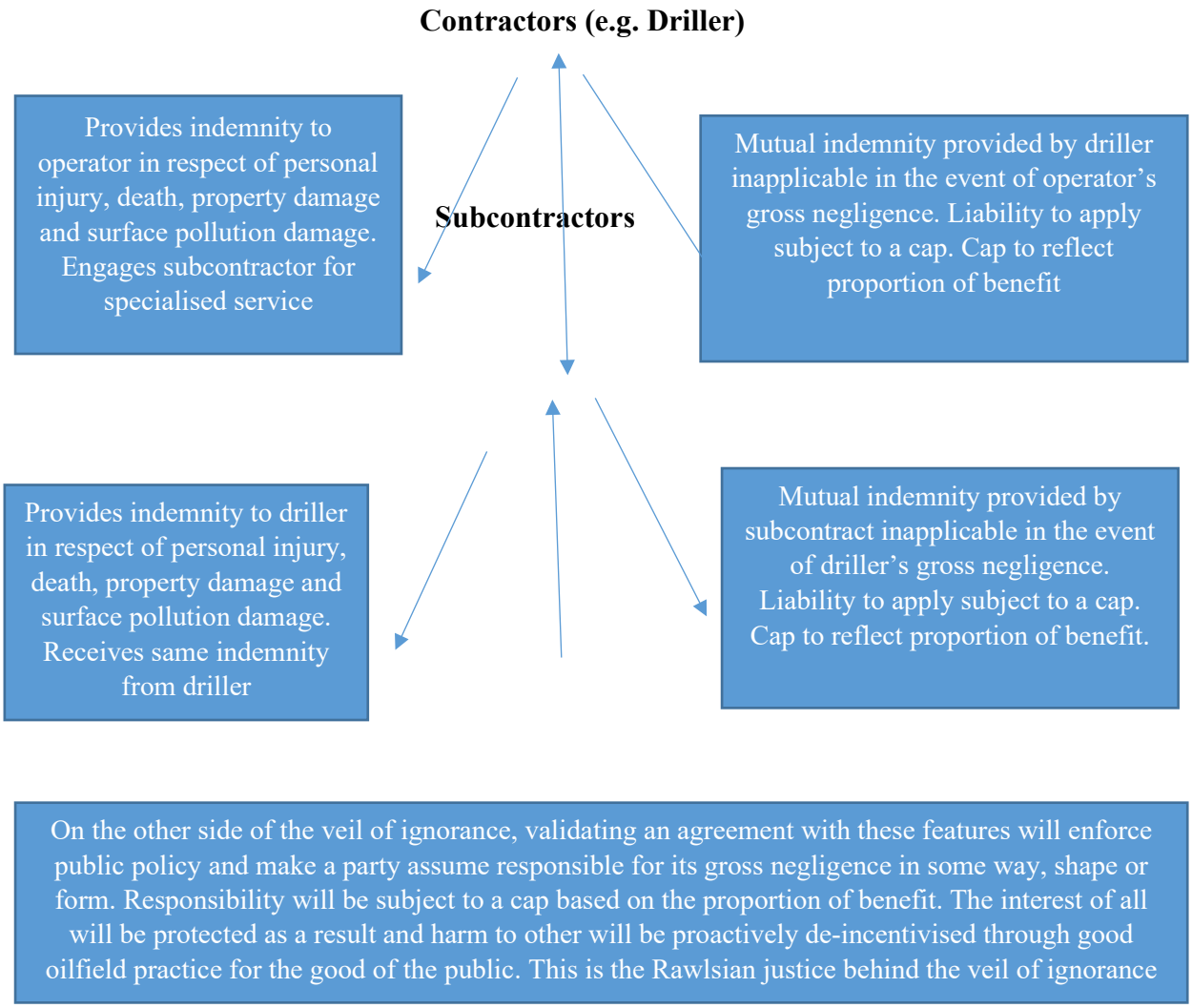
indemnity given by the other party will no longer be functional. The liability cap protects the interest of the drilling contractor who does not partake in the operator's long-term financial upside. Thus, reducing his overall liability in the drilling operation.

The operator has the duty to carry out clean-up and compensate those affected by the downside of the petroleum activity. A specific amount can be recovered from the drilling contractor for his gross negligence, but the operator still retains his responsibility to the government. Liability above the cap will be assumed by the party that has responsibility for the stated risk. It is worthy of note that parties to the contract cannot trade-off gross negligence as the regulation would make indemnity below the cap to be unenforceable. To allow a trade-off for grossly negligent acts will still encourage the same act sought to de-incentivise. In this way, public policy will be promoted, the interest of all is considered, the harm is not encouraged through any practice, and the contract will be to the benefit of all. As Rawls puts it, dealing with challenging subjects through a veil of ignorance and applying these principles can assist us to agree more fairly how the rules of society should be designed. Moreover, fairness, as believed by Rawls and several others, is the essence of justice.

Below is a diagrammatic representation of a hypothetical contractual risk allocation practice behind a veil of ignorance. Some of the indemnities are reciprocal in the way they apply.

Figure 6. Hypothetical risk allocation behind a veil of ignorance





In advancing arguments for a rethink of the contractual practice of risk allocation, the veil of ignorance allows this study to critique the contractual practice of risk allocation in the oil industry as the practice sets up a procedure that is not fair to all. It is unfair to impose the burden of gross negligence on a party that did not cause the harm or loss. It is worth noting that the party who did not occasion the gross negligence, is also responsibility for the negligent acts of the party who has caused the gross negligence.

The current industry practice also encourages oilfield practices that can put a burden on society in the form of harm or loss. To put a burden on society or a contracting party is to be unjust to society or the party, an being unjust is not what an allocation behind the veil of ignorance will promote. And because an allocation of risk behind the veil of ignorance will not encourage a party to use mutual indemnity agreement as a shield, it allows this study to argue that a party should be liable for its gross negligence subject to the proportion of its benefit. It may be argued that an operator's risk is balanced by a considerable upside if the drilling is successful. On the contrary, the Macondo accident has shown otherwise. BP suffered losses in shares and

paid out over US$50 billion in compensation and clean-up cost when the accident occurred. Again, arguments may be advanced that a contract identifies who will pay compensation for damage and losses to members of the society or fines to government. Albeit, compensation does not mean a return to status quo, it is only a palliative measure which most times leaves society with untold hardship.

For instance, the GoM oil spill forced businesses around the area of the accident to close and it also caused economic hardship for many fishing communities around the GoM. The solution lies in prevention and not compensation; a proactive rather than a reactive approach. An allocation behind the veil of ignorance will only allow a procedure that is fair to all. A procedure that will have a party to assume responsibility for its gross negligence in some way, shape, or form, and not one that will leave the entire responsibility to another party who did not cause the harm or loss. Since all interests are protected behind the veil, and the proposal in this study look to protect all interest, whereas the current industry practice does not, this study is entitled to argue that the industry practice is incompatible with the Rawlsian veil of ignorance.

The present industry contractual practice gives room for bad oilfield practices that could result in harm. When parties allocate risk behind a veil, they avoid practices they could encourage harm and loss. This is what this study proposes. If practices that encourage bad oilfield practices are avoided in risks allocation behind a veil, it allows this study to propose practices that de-incentivises bad oilfield practices. This disincentive is effective when people assume responsibility for seriously wrongful conducts which are likely to promote bad oilfield practices that could result in harm or loss to all concerned. The position of the parties behind the veil should yield agreements that are just, placing the parties fairly, and designing the contract to reflect the interest of all. Agreements that are just align with public policy for the good of society and the contracting parties.

From the arguments advanced in this study, a convergence of all the concepts is apparent. Both Rawls' justice theory and the distributive justice concept canvassed in this study focuses on fairness - a fair agreement for all. Public policy seeks to protect the interest of the public; hence, the refusal to validate contracts that may promote harm to society. The gravamen of the non-validation is that to do so will be unfair to society, as harmful conducts would be encouraged against public interest and public moral. As a result, public policy requires a party to take responsibility for his severely wrongful act by assuming liability for gross negligence. The

public policy underpinning notes that it is fair to do so, as this will de-incentivise conducts that affects public safety.

To align with the objective of public policy - deterrence and liability -, the cap is effective employed to ensure that a party assumes responsibility for its gross negligence up to a stated cap. The cap recognises the fairness concern that the positions of the parties are not the same. The proportionality element of distributive justice provides the basis for which the cap can be applied. Thus, enabling a convergence of all the concepts applied in this study to advance the proposition that mutual indemnity should not apply as a shield against liability for gross negligence.

8.4 Why should Government support this type of risk distribution?

Global environmental priorities are continually changing. The governmental approach to environmental protection is becoming more proactive - from remedying to prevention. The fairer distribution of risk among the key players in the oil industry, as canvassed in this study, is a vital harm prevention strategy that could reduce the possibility of offshore drilling risk or prevent the same. The reason is that when two or more entities assume the responsibility of the occurrence of a risk, there will be mutual monitoring (A monitor's B and vice versa) to avoid liability. Mutual monitoring, if encouraged by the government, could facilitate a non-coercive method of preventing harm during drilling operations, and reducing the cost of command and control regulations to protect the environment.[812] Again, mutual monitoring could lead to low offshore accidents, and low accidents may result in less agitation by oil-bearing communities, thus giving the government an environmentally-responsive image. There are also economic benefits for the government as raw materials (crude) are not wasted, but processed and taxed paid on production done.

8.5 Conclusion

A proactive rather than a reactive strategy to risk allocation in the oil industry is essential. This approach to risk can be applied by making mutual indemnity subject to gross negligence on the part of the party that caused the harm or loss. The crux of this proposal is to encourage conduct geared toward exercising care, preventing harm and losses during offshore drilling operations. The idea behind this strategy is that a party should not be allowed to use a mutual indemnity

[812] Frederick R Anderson, 'From Voluntary to Regulatory Prevention' in Braden R Allenby & Deanna J Richards (eds*), The Greening of Industrial Ecosystems* (National Academy Press 1994) 98-100.

agreement as a shield for liability against gross negligence. Regulatory and contractual clauses could be used to mainstream the idea, primarily through oil and gas regulations and model clauses or model PSCs, to prohibit the use of mutual indemnity agreements as a shield against liability for gross negligence. This strategy will limit the application of mutual indemnity agreements in drilling contracts. It will also promote the public policy of harm prevention and will ensure that another party in the contract does not bear harm or losses from the grossly negligent act of a party.

Chapter 9: Overview, Conclusion and Contributions

"A review of the model forms and other drilling contracts indicate that the oil industry practice of risk allocation could de-incentivise the exercise of care during drilling operations"[813]

9.0 Introduction

An examination of the practice of allocating risk through mutual indemnity in the oil industry shows that the practice is not subject to gross negligence. Thus, it creates room for want of care for a party who does not have contractual responsibility for a particular risk. This want of care could lead to harm or loss during drilling operations. It could also have a party pay for the grossly negligent act of another party to the contract. This practice is contrary to public policy as it does not serve the deterrence and liability purpose, for severely wrongful conducts. This chapter presents an overview of the study and summarises the important findings. It advances valuable contributions the research can make in contract law and the implications that could arise from it. It notes that regulatory powers could be used to make mutual indemnity subject to gross negligence on the part of the party that caused the harm. This new thinking could be achieved through regulation, thus enforcing public policy and incentivising the prevention of harm or losses during drilling contracts.

9.1 Brief Overview

This study looked at the non-regard to fault for grossly negligent conducts between a well operator and a drilling contractor, and its compatibility with public policy. The allocation of risk is based on contract and not a tort, and the focus is on people, property and pollution damage. Although some model forms provide alternative clauses that could make mutual indemnity subject to gross negligence, this is rarely applied. Its use in contracts is optional and not obligatory. In cases where gross negligence applies in a contract, its definition is still a challenge as there is no clear judicial or statutory definition. In contracts where gross negligence applies, each contract defines the concept to reflect the intent of the parties. However, gross negligence ought to be a regulatory concept which overrules the contractual consequence - indemnity. While this practice has been long-term in the industry, it ought to be a breach of public policy and against distributive justice for mutual indemnification not to be subject to gross negligence.

[813] Author's quote.

Following the Macondo accident, there is an aversion to risk. Some participants in the oil industry now seek to transfer some risks to others. This attempt has elicited a re-examination of the industry practice, especially by this study. In the face of this aversion to risk, this study notes that a focus on seriously wrongful conducts will douse the aversion. Where gross negligence is not in the same category as mere negligence, there will be the responsibility for conducts that fall far below the expectation of a reasonable oilfield practice. This responsibility will help to reduce the fear of liability on the part of the party who is contractually responsible for the risk.

9.2 Conclusion

This study set out to examine the practice of risk allocation in the offshore oil industry and to understand the challenge in the practice that has occasioned risk aversion by some participants. In other to answer the research questions put forward, this study, through the examination of classic models and private mutual indemnity agreements, has shown that operators and contractors allocate risk without regard to fault, and most times, without regard to their gross negligence. It has been shown in this study that gross negligence, when applied as a shield, enables the party at fault to walk away freely without liability, thereby encouraging a want of good oilfield practice in drilling operations, given that the party at fault has no incentive to take care.

This study argued that it is contrary to public policy to allow a party to go without liability for his gross negligence. It is because the party at fault has caused harm to society and loss to another contracting party, arising from his seriously wrongful conduct. Also, the resulting liability will be borne by a party who did not occasion the loss or damage. This study states that the practice of risk allocation enables a party, whose gross negligence has caused harm, to still receive an indemnity for his wrong. Thus, de-incentivising the exercise of care for responsibilities that are not that of a particular party. Public policy has an interest in deterring those whose injurious conducts affect the interest of the society.

To indemnify or hold a party harmless for his gross negligence will not serve the public policy of liability and deterrence. It will instead result in the want of standard oilfield practice, thus leading to harm on the society and loss on a contracting party. This study notes that where a party's gross negligence leads to either injury, death, property damage or pollution damage, such party should assume responsibility for the wrong. In the law of contract, a party is not allowed to benefit from his wrong – ex turpi causa non oritur actio. The basis for this

proposition is distributive justice. Keating notes that it is corrective justice.[814] It is fair and just for the burden of an activity to be borne by the party whose gross negligence caused the harm, albeit, in the proportion of the benefit he reaped from the activity.

While it is apparent that risk allocation is the focus, the industry what is being allocated is risks, the approach to risk allocation is reactive rather than proactive. A proactive practice of risk allocation will put measures in place to incentivise good oilfield practice that could prevent or reduce the occurrence of the risk, while also identifying the party to bear responsibility in the event of a downside. As a way of rethinking the practice of risk allocation, this study shows a general contractual principle to the effect that a party should not use mutual indemnity agreement as a shield against liability for gross negligence. The party at fault should not receive indemnity or be held harmless for the wrong, which results from gross negligence. The importance of this new practice is that it will incentivise the exercise of care and reduce the incidence of harm and loss during drilling operations. This practice will, in turn, douse the concern participants in the oil industry.

In order to solve the problem of definition, this study proposes a definition of gross negligence that could be used in general contract - *conduct that falls far below the standard of a reasonable man*. The reasonable man is used interchangeably with good oilfield practice. This study notes that gross negligence is a significant or marked departure from the expected standard of care. It is conduct evaluated without regard to the actor's particular state of mind; instead, reference is made to how unreasonably dangerous or severely wrongful the conduct was under the circumstance.[815] The proof will be to show that a party's conduct falls far below the required standard of a prudent man in a particular circumstance.[816] It is worth noting that, while the employee of the company exhibits conduct is exhibited by an employee of the company, the conduct is regarded as a corporate conduct where the company ratifies or authorises the employee's conduct, or where the employee acted within the scope of his employment, and for the employer's benefit. The company will be liable for acts of gross negligence, resulting the employees conduct.

The definition of gross negligence above is designed to operate as a term of art that will guide courts in determining in any circumstance, conducts that fall far below the standard of a reasonable oilfield practice. It will also allow for the application of distributive justice, the

[814] Keating (n 75) 193.
[815] Howard (n 212) 342.
[816] See chapter three on the discussion on gross negligence.

basis for which this study argues that a party whose conduct results in gross negligence should bear the burden of an activity it benefits from, subject to the benefit reaped. When mutual indemnity is subject to gross negligence or used as carve out, compliance with distributive justice is sure as the party who caused the harm bears a proportion of the burden.

As proposed in this study, a proper direction for gross negligence that patterns parties' behaviour to avoid injury, death, property damage and pollution damage to the public or a party to the contract, is essential. This direction is what public policy seeks to protect, and regulation could facilitate its use in petroleum operations through the oil and gas law or specific provisions inserted into model clauses or model PSCs. This will ensure regulatory control against the use of gross negligence as a shield between operators, contractors and even sub-contractors during drilling operations. These administrative tools could also provide that the allocation of risk between the operator and the contractor should represent the stake of the respective parties.

The essence here is to enforce the proportionality element of distributive justice so that the burden of a party does not exceed the benefit it will derive (risk and reward). This proportionality element could be realised using a liability cap for gross negligence by a party. It is also to prevent a situation where an operator and a contractor allocate risk in a manner that leaves the liability for gross negligence on one party while the other party who occasioned the loss walks away freely. The proposal in this study will help to strengthen anti-indemnity legislations in the US. This is because its inclusion in the model clause or model PSC could protect weaker parties from stronger ones who may want to use their position to get a bargain that is unfair against another party.

Operators and contractor could also provide in their private contracts that indemnity clauses shall be subject to gross negligence, albeit, in the proportion of the benefit of the party who occasioned the harm or loss. For the proportion, parties could state clearly in their contract, how they want the proportion of liability to be derived. This inclusion will strengthen the regulatory provision and further enforce the proposal that mutual indemnity should be subject to gross negligence. By doing this, regulation and contract will incentivise the exercise of care during drilling operations, thus promoting public policy, which ensures deterrence and liability for severely wrongful conducts that cause harm or loss. The proportionality element of distributive justice will ensure that a party that has contractual responsibility for a risk did not bear the entire liability when he did not occasion the harm. Also, the burden of the party who

caused the harm should be in tandem with the benefit he receives (risk and reward) from the harmful activity according to Keating's postulation of distributive justice.

It is important to note that, in the examination of gross negligence, this study is not concerned about the extent of damage or amount of liability. The focus is on the conduct of parties during drilling operations. Severely wrongful corporate conducts, exercised through employees, could be adjudged to be grossly negligent. In this way, the aim of this study, which is to suggest approaches that could make mutual indemnity agreements subject to gross negligence in contract, for the sake of public policy, will be achieved. The essence is to put a check on grossly negligent conduct and stop participants from moving the financial consequence of their seriously wrongful act to another person.

It is worth noting also that, although people and property fall under direct loss, the proposal still applies as it focuses on conduct that leads to injury or property damage. In this way, the proposal keeps the distinction between direct and indirect losses intact, even though it covers people, property and pollution damage. It only does not matter that the people and property direct claim now has two routes – i.e. a negligence claim/mutual hold harmless contractual claim; plus, now a gross negligence claim – both will arrive at the same outcome which is not a legal problem. Lots of claims can be made more than one way, e.g. in tort and contract.

Although the regimes compared in this study were the PSC and Concession, the solution to gross negligence in mutual indemnity contract is representative of most, if not the world practice in risk allocation. A closer look at public policy, distributive justice, and liability cap in the gross negligence discussion, reveals a convergence of these concepts to promote public interest in contracts. From a Rawlsian point of view, these concepts can play out in a contract when parties allocate risk behind a veil of ignorance. This veil promotes a fair and just allocation, in the interest of everyone.

9.3 Contributions

This study has made vital contributions to the practice of risk allocation that could set a new agenda in the oil industry and contractual practice in general. It identified the problem associated with allowing gross negligence to be a shield in risk allocation, and it fixed it through contractual and regulatory suggestions above. This study establishes a principle of contract law that mutual indemnity agreements should not operate as a shield against liability for grossly negligent conduct, which results in harm or loss. This study proposes the use of a clause(s) that

will make mutual indemnity subject to gross negligence in the contract. That is, where a party's conduct falls far below that of a reasonable man, such party shall be liable for its wrong. The standard of behaviour is that of a reasonable man involved in the risky business of drilling operations. This standard sets a new rule in contract law that says a party cannot use mutual indemnity as a cover for its gross negligence; which rule is entirely consistent with the rationale of law.

For gross negligence to apply against the party at fault, its meaning must be settled, with an understanding that it relates to risk allocation arising from the contract and not tort and relating to harm or loss. As a contribution, this study provides a clear and applicable meaning of gross negligence, a definition that has eluded courts and practitioners in the hydrocarbon industry. Through an understanding of the history of gross negligence and its philosophical underpinning in operator-contractor indemnity contracts, this study provides a pathway for its application in the oil industry. When issues of gross negligence arise in oil contracts, the court will only examine the facts and evidence presented before to determine whether the conduct falls *far below* the standard of a reasonable man involved in the risky activity of offshore drilling. Providing a standard to judge gross negligence is a great contribution to contract law.

Furthermore, this study shows how regulation could be used to protect public policy and prevent the moral hazard in drilling contracts, by inserting proscription clauses in model contracts or model PSCs between operators and host states. In a post Macondo era where parties are concerned about the risk of damage, this study provides a pathway to douse the concern, while also retaining the underlining philosophy of risk sharing and responsibility between operators and contractors. With risk sharing, a party can recover losses from another arising from gross negligence, even when bankruptcy results.

Another contribution of this study is that it sets out how drilling contracts could be used to allocate risks in situations where gross negligence applies as a carve-out. This study suggests that to achieve the philosophical underpinning in risk allocation, which is influenced by the risk and reward system in the drilling contracts, a proportion of the liability should apply for damage arising from gross negligence. Furthermore, the practice of risk allocation as proposed could incentivise practices, in addition to health and safety rules, that may encourage harm prevention, as the thought of liability will motivate the exercise of care in drilling operations. This practice was illustrated using the Rawlsian veil of ignorance.

In summary, this study presents an applicable practice of risk allocation, a departure from the former practice, which will transform the practice and contractual culture of risk allocation in the offshore oil industry to new contractual thinking. This new thinking is a valuable contribution. Other literature on risk allocation merely restate the obvious – drafting considerations, jurisdictional application, judicial interpretation, risk allocation rationale etc. This study, however, presents a departure from the norm, to address the evolving nature of risk in a post Macondo era. This evolution of risk is indispensable.

9.4 Research implications

The policy and contractual pathways proposed in this study represent a dynamic rethink from the traditional practice of risk allocation to a post-Macondo practice. Parties will now be liable for severely wrongful conducts resulting in harm or loss during drilling operations. The implication is that mutual indemnity will be subject to gross negligence. It is envisaged that this will elicit contractual changes and other responses from stakeholders. This study notes that while operators clamoured for a change in the risk allocation system, demanding contractors to shoulder responsibility for negligent or gross negligent conducts, contractors will seek more advantages in other areas.

One of the implications of the proposal in this study is that the enforcement of public policy through regulation could incentivise mutual monitoring and foster good offshore practices that could prevent damage and losses in drilling operations. It will provide an optimal incentive for harm-prevention to all parties in the risk matrix. Operators will monitor contractors and contractors will monitor operators too to maintain a suitable risk profile. Contractors will also monitor contractors, thus forestalling any negative distributional effect.[817]

A distributive outcome will thus result in minimal accidents and reduce the sum of accident cost - the goal of every liability regime[818]- as gross negligence liability could constitute an ex-ante incentive for prevention. The implication of controlling stochastic externalities[819] in the offshore oil industry has an incentive effect. The incentive effect motivates the need to take actions that will improve safety and reduce the possibility of an offshore accident.[820]

[817] Posner (n 444).
[818] Calabresi (n 74).
[819] Accidental oil pollution or releases
[820] Kathleen Segerson, 'Risk-Sharing and Liability in the Control of Stochastic Externalities' (1987) 4(3) Marine Resources Economics 175.

Another consequence of this study's proposal is that gross negligence will become a trigger for liability in subcontracts during offshore drilling operations. Contractors and sub-contractors would now allocate the risk of injury, death, or property damage subject to gross negligence. This new practice will apply because regulation would have proscribed the indemnification of a party who is guilty of gross negligence. Every development drilling contract leads to other subcontracts (such as cementing, wire logging etc.) to achieve the goal of drilling for production. In the UK, for instance, contractors enter into mutual hold harmless agreements to indemnify each other, in the event of a downside, regardless of the cause. The consequence will be that a subcontractor will be liable in damages if his gross negligence results in damage or loss, albeit, subject to the benefit reaped.

There is also the day rate implication for operators and contractors. Offshore drillings are mostly carried out on a day rate basis, although turnkey and footage may apply where necessary. The drilling of offshore oil wells has been carried on by the oil industry under a belief that the long-term financial upside in the event of a commercial discovery belongs to the operator/licensee. Also, that since the operator designs the work programme for the well and supervises it,[821] he currently has control over the activity, hence, the reason he should solely bear any liability arising an oil spill. If drilling contractors are made to take responsibility for well pollution arising from gross negligence subject to the cap, the consequence could be an increase in the day rate chargeable by drilling contractors.

Again, this study anchored its analytical lens on the distribution of the benefits and burden of mutually beneficial but harmful activities. The implication is that drilling contractors may argue that since they are to bear certain burden arising from gross negligence, they too should be part of the long-term financial upside. This burden and benefit idea relate to the risk/rewards system in the oil industry. Contractors may require the inclusion of clauses that confer benefits on them for sharing a burden they hitherto believe belong to the operator. This implication may arise because incentives and risk sharing, which are tools for the reduction of offshore accident cost, prompt parties to employ measures towards good and safer offshore operations and risk reduction.[822] A party to the contract could also think about the relationship of gross negligence to safety regulations or drivers and the role of the operator or the contractor in the circumstance.

[821] Cameron (n 7) 208.
[822] Inho Kim, 'Introducing Oil Cargo Liability in the Oil Pollution Act of 1990' (2002) 33(2) Journal of Maritime Law and Commerce 185.

Furthermore, contractors may demand a change in the risk allocation regarding liability for re-drilling a hole, loss of tools, wild well liability etcetera, following a dynamic rethink of the contractual risk allocation practice. The reason could be because risk bearing leads to responsibility for cost, which is what Keating's proportional benefit postulates. A trade-off effect in cost bearing comprises not only an incentive and risk sharing outcome but also in the individual sets of incentives and effects on the responsible party.[823] Although this study proposes that a proportion of the liability for injury to or death of personnel, property damage and pollution damage, arising from gross negligence, should be borne by the party at fault, contractors may request caps in related well obligations such as loss of tool and re-drill.

9.5 Further research

The proposal advanced in this study will result in a situation where parties will have to be responsible for harm or losses arising from gross negligence. This responsibility will snowball into parties looking to obtain insurance as security for gross negligence. The mechanism for the operationalisation of this type of insurance needs to be set up. The fundamental question here will be what the nature, extent, structure, application and premium, among other things, will be for the insurance coverage. Research in this direction will help the oil industry to meet its obligation in the event of a downside arising from the gross negligence of a party.

[823] Ibid 189.

APPENDIX 1

PRODUCTION SHARING CONTRACT

BETWEEN

NIGERIAN NATIONAL PETROLEUM CORPORATION

AND

1. GAS TRANSMISSION AND POWER LIMITED
2. ENERGY 905 SUNTERA LIMITED
3. IDEAL OIL AND GAS LIMITED

COVERING BLOCK 905 ANAMBRA BASIN

THIS DOCUMENT IS IN PUBLIC DOMAIN

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CONTENTS

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Annex E ..... Procurement and Project Implementation Procedure
Annex F .....Performance Bond
Annex G.....Work Programme and Budget
Annex H ..... OPL 905 Minimum Financial Commitment

APPENDIX

Appendix 1.....Participating Interest
Appendix 2.....Signature Bonus
Appendix 3.....Prospectivity Bonus
Appendix 4.....Parent Company/Affiliate Guarantee

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THIS CONTRACT is made this 23rd day of April 2007 BETWEEN the NIGERIAN NATIONAL PETROLEUM CORPORATION, a Corporation established under the laws of the Federal Republic of Nigeria, with its head office at NNPC Towers, Herbert Macaulay Way, Central Business District, Abuja (hereinafter referred to as "the CORPORATION" which expression shall, where the context so admits, include its successors-in-title and assigns) of the one part,

and

GAS TRANSMISSION AND POWER LIMITED a company incorporated under the laws of the Federal Republic of Nigeria having its registered office at Plot 515 Usuma Close, Maitama, Abuja Nigeria (hereinafter referred to as "GTPL" which expression shall, where the context so admits, include its successors-in-title and assigns); ENERGY 905 SUNTERA LIMITED a company incorporated under the laws of the Federal Republic of Nigeria having its registered office at 2, Siji Soetan Street, Off Onikepo Akande Street, Off Admiralty Way, Lekki Peninsula, Lagos, Nigeria (hereinafter referred to as "ENERGY 905" which expression shall, where the context so admits, include its successors-in-title and assigns) and IDEAL OIL AND GAS, a company incorporated under the laws of the Federal Republic of Nigeria having its registered office at 17 New Court Road, Ibadan, Oyo State, Nigeria (hereinafter referred to as "IDEAL OIL" ("LCV") which expression shall, where the context so admits, include its successors-in-title and assigns) of the other part.

GTPL, ENERGY 905 and IDEAL OIL are hereinafter collectively referred to as "CONTRACTOR".

IDEAL OIL is also hereinafter referred to as LCV.

WHEREAS, by virtue of Section 1 of the Petroleum Act Cap 350 Laws of the Federation of Nigeria ("LFN") 1990 as amended, the Federal Government of the Federal Republic of Nigeria is vested with the entire ownership and control of all petroleum in, under or upon any land which is in Nigeria or under the territorial waters of Nigeria or forms part of the continental shelf of Nigeria or within the Exclusive Economic Zone of Nigeria; and

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WHEREAS, the CORPORATION is entitled to hold the Oil Prospecting License (OPL) No. 905 described in Annex A hereto and any subsequent Oil Mining Lease (OML) derived therefrom; and

WHEREAS, by virtue of the Nigerian National Petroleum Corporation Act 1977 Cap 320 LFN 1990, the CORPORATION has the right, power and authority to enter into this Contract; and

WHEREAS, pursuant to the 2005 Nigeria Bidding Round, the CONTRACTOR has been selected to be a CONTRACTOR to the CORPORATION for OPL No.905 subject to terms contained herein and

WHEREAS, the CONTRACTOR represents that it together with its Affiliates, has the technical competence and professional skills necessary to conduct Petroleum Operations and has the funds, both local and foreign for carrying on the said operations and has agreed to conduct the said operations; and

WHEREAS, the said area of the OPL No. 905 and any subsequent OML emanating from the OPL and issued for this Contract shall constitute the Contract Area; and

WHEREAS, GTPL is designated Operator under Clause 28 of this Contract.

NOW THEREFORE, in consideration of the premises and the mutual covenants herein reserved and contained, it is hereby agreed as follows:

CLAUSE 1: DEFINITIONS

As used in this Contract, unless otherwise specified, the following terms shall have the respective meaning herein ascribed to them.

(a) **"Accounting Procedure"** means, the rules and procedures as set forth in Annex B and attached to and forming part of this Contract.

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(j) **"Concession Rentals"** means, the rents payable annually on the OPL and any OML derived therefrom under the Petroleum Act CAP 350 LFN 1990.

(k) **"Contract"** means, this Production Sharing Contract, together with the Annexures and Appendices attached to this Contract, and any extension, renewal or amendment hereof agreed to in writing by the Parties.

(l) **"Contract Area"** means, in relation to the OPL as described in Annex A, the area of the OPL and in relation to the OML, the area of the OML derived from the OPL in line with the Oil Prospecting Licences (Conversion to Oil Mining Leases, etc) Regulation 2004.

(m) **"Contractor"** means, all of the Contractor Parties jointly and collectively.

(n) **"Contractor Party"** means, any one of GTPL, ENERGY 905 and IDEAL OIL and any of their successors or permitted assignees and **"Contractor Parties"** means, all of GTPL, ENERGY 905 and IDEAL OIL and any of their successors or permitted assignees.

(o) **"Contract Year"** means, a period of twelve (12) consecutive months according to the Gregorian Calendar, from the Effective Date of this Contract or from the anniversary of the Effective Date.

(p) **"Cost Oil"** means, the quantum of Available Crude Oil allocated to the CONTRACTOR for recovery of Operating Costs incurred in respect of Petroleum Operations after the allocation of Royalty Oil to the CORPORATION.

(q) **"Crude Oil"** means, the liquid petroleum, which has been treated but not, refined and includes condensates but excludes basic sediments and water.

(r) **"Decommissioning"** means, the plugging and abandonment of wells; the removal and disposal of equipment and facilities including well heads, processing and storage facilities, platforms, pipelines, transport and export

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facilities, plants, machinery, fixtures, the restoration of sites and structures including the payment of damages relating thereto;

(s) **"Deep Offshore"** means, any water depth beyond 200 metres.

(t) **"Department"** means, the Department of Petroleum Resources of the Ministry of Petroleum Resources referred to as Petroleum Inspectorate under the Nigerian National Petroleum Corporation Act CAP 320 LFN 1990 or any successor thereof delegated with the Department's responsibility.

(u) **"Effective Date"** means, the date of this Contract.

(w) **"Exploration Period"** shall have the same meaning as described in Clause 4.2.

(x) **"Exploratory Well"** means, the well on any geological structure(s), which at the time of commencement of drilling is to explore for an accumulation of hydrocarbons whose existence at the time was unproven by drilling;

(y) **"Field Development Programme"** means, the programme of activities presented by the CONTRACTOR to the Management Committee and approved by the Management Committee outlining the plans for the development of a Commercial Quantity. Such programme of activities shall include, but not be limited to:

a. reservoir, geological and geophysical studies and surveys;
b. drilling of production and injection wells;
c. design, construction, installation, connection and initial testing of equipment, pipelines, systems, facilities, plants and related activities necessary to produce and operate said wells,
d. undertake re-pressurising, recycling and other secondary or tertiary recovery projects;

(z) **"Foreign Currency"** means, currency other than that of Nigeria.

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(aa) **"Government"** means, the Government of the Federal Republic of Nigeria.

(ab) **"Gross Negligence"** means, any act or failure to act of any Senior Supervisory Personnel (whether sole, joint or concurrent) which was intended to cause, or which was in reckless disregard of or wanton indifference to the harmful consequences such act or failure to act would have on (a) the safety of personnel or property or (b) Petroleum Operations or (c) books and accounts and oil industry accounting standards and procedures.

(ac) **"Joint Operating Agreement (JOA)"** has the meaning assigned to it in Clause 14.3.

(ad) **"Lifting Procedure"** means, the Rules and Procedures set forth in Annex D and attached to and forming part of this Contract.

(ae) **"Local Content"** means the quantum of composite value added to, or created in the Nigerian economy through a deliberate utilization of Nigerian human and material resources and services in the Nigerian petroleum industry which includes all activities connected with the exploration, development, exploitation, transportation and sale of Nigerian Crude Oil and Natural Gas resources.

(af) **"Minister"** means, the Minister charged with the responsiblity for Petroleum Resources in Nigeria.

(ag) **"Ministry"** means, the Ministry charged with the responsibility for Petroleum Resources in Nigeria.

(ah) **"Natural Gas"** means, all gaseous hydrocarbons produced in association with the Crude Oil and/or from reservoirs, which produce mainly gaseous hydrocarbons.

(al) **"Non-Capital Costs"** means, those expenditures incurred and obligations made in accordance with Article II.1 of the Accounting Procedures.

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(aj) **"Oil Mining Lease"** ("OML") means, a lease granted by the Minister under the Petroleum Act CAP 350, LFN 1990 as amended, to a lessee to search for, win, work, carry away and dispose of petroleum.

(ak) **"Oil Prospecting License"** ("OPL") means a license granted by the Minister under the Petroleum Act CAP 350, LFN 1990 to a licensee to prospect for petroleum.

(al) **"Operating Costs"** means, expenditures incurred and obligations made as determined in accordance with Article II of the Accounting Procedure.

(am) **"Operator"** means, the company designated as Operator in accordance with Clause 28.

(an) **"Participating Interest"** means, the rights and obligations of the Contractor Parties under this Contract, which shall be held in the respective Participating Interests described in Appendix 1.

(ao) **"Party"** means, either the CORPORATION or the CONTRACTOR and "Parties" means, the CORPORATION and the CONTRACTOR.

(ap) **"Petroleum Operations"** means, the winning or obtaining and transportation of petroleum or chargeable oil in Nigeria by or on behalf of a company for its own account by any drilling, mining, extracting or other like operations or process, not including refining at a refinery, in the course of business carried on by the company engaged in such operations, and all operations incidental thereto and any sale of or any disposal of chargeable oil by or on behalf of the company.

(aq) **"Petroleum Profit Tax"** or "PPT" means, the tax pursuant to the Petroleum Profits Tax Act CAP 354 LFN 1990.

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(ar) **"Proceeds"** means, the amount in U.S. Dollars determined by multiplying the Realizable Price by the number of Barrels of Available Crude Oil lifted by either Party.

(as) **"Profit Oil"** means, the balance of Available Crude Oil after the allocation of Royalty Oil, Tax Oil, and Cost Oil.

(at) **"Realizable Price"** means, the price in U.S. Dollars per Barrel determined pursuant to Clause 10.

(au) **"Relinquished Area"** means, the 50% of the Contract Area that is relinquished at the end of the Exploration Period, subject to Clause 5 hereof.

(av) **"Royalty"** means, the amount of Royalty payable to the Government in Nigeria as fully described in Clause 16.1 hereof.

(aw) **"Royalty Oil"** means, the quantum of Available Crude Oil produced from the Contract Area that will generate an amount of Proceeds equal to the actual payment of Royalty.

(ax) **"Senior Supervisory Personnel"** means, with respect to a Contractor Party, or any of its Affiliates or sub-contractor providing services, any senior supervisory employee who functions in Petroleum Operations and who is in charge of on-site drilling, construction, production, installations or facilities and related operations, or any other field operations, or employee who functions at a management level equivalent to or superior to the described positions, any person to whom such person reports (such as an officer or director of such Contractor Party or of any such Affiliate of such Contractor Party).

(ay) **"Tax Oil"** means, the quantum of Available Crude Oil produced from the Contract Area and allocated to the CORPORATION which will generate an amount of Proceeds equal to the actual payment of PPT under this Contract.

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(ba) **"Work Programme"** means activities relating to Petroleum Operations defined in Clause 6 and Exploration Period,detailed in Annex G, which shall be carried out by the Contractor in the Contract Area for the applicable period.

(bb) **"Year"** means, a period of twelve (12) consecutive months according to the Gregorian Calendar.

Reference to the singular includes a reference to the plural and vice versa.

The headings used in this Contract are for convenience only and shall not be used to construe or interpret the Contract.

Any law, statute or regulation referred to in this Contract shall mean the law, statute or regulation as it exists on the date of execution of this Contract and any amendment(s) thereto.

CLAUSE 2: BONUSES

2.1 CONTRACTOR shall pay to the Department, Signature Bonus in the amount specified in Appendix 2 upon initialling but prior to the date of execution of this Agreement. The Bonus referred to in this Clause 2.1 shall be paid into an account to be designated in writing by the Department.

CONTRACTOR shall submit to the CORPORATION evidence of payments of the Bonus specified in Clause 2.1 prior to the execution of this Contract.

2.2 CONTRACTOR shall pay to the CORPORATION a Production Bonus as follows:

(a) One hundred thousand barrels (100,000bbls) or cash equivalent on attainment of cumulative production of one million barrels (1,000,000 bbls).

(b) One million barrels (1,000,000 bbls) or cash equivalent on attainment of cumulative production of two hundred and twenty million barrels (220,000,000 bbls).

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APPENDIX 2

DRILLING SERVICES AGREEMENT

THIS AGREEMENT, dated the 10th day of April, 2007, is made between

[redacted] Drilling Nigeria Ltd.
A company incorporated under the laws of Nigeria and having its operating address at 2nd floor, [redacted] Street, [redacted] – Nigeria,

hereinafter called the '**Contractor**' (which expression shall where the context so admits include their successors-in title and assigns) of the one part

and

[redacted] Exploration & Production Nigeria Ltd
A company incorporated under the laws of Nigeria and having its operating address at 5th floor, [redacted] Nigeria,

hereinafter called the '**Operator**' or the '**Company**' which expression shall where the context so admits include their successors-in title and assigns) of the second part.

WHEREAS, the Operator desires to have a well or wells drilled on lands in the Operating Area and to have performed or carried out, all auxiliary operations and services as detailed in the Appendices hereto or as the Operator may require; and

WHEREAS, the Operator desires to drill and complete the well(s) as delineated in Appendix A as the first test in this proposed program.

WHEREAS, the Contractor is willing to furnish the drilling rig together with drilling and other equipment (hereinafter called the 'Drilling Rig'), insurance and personnel, all as detailed in the Appendices hereto for the purpose of drilling the said well(s) and performing the said auxiliary operations and services for the Operator.

WHEREAS, the Contractor intends to use NRG Rig #201 as the Drilling Rig, but reserves the right to utilize an alternate rig, should Rig #201 not be available, or it deems that another rig might be more suitable to the drilling conditions anticipated.

NOW THEREFORE THIS AGREEMENT WITNESSETH that in consideration of the covenants herein it is agreed as follows:

ARTICLE I – INTERPRETATION

101. DEFINITIONS

In this Contract, unless the context otherwise requires:

(a) **Commencement Date** as used in this Contract, shall be the date on which the Rig, the Contractor's items and the Contractor's personnel have arrived at the site and the Rig is properly positioned at the first drilling location designated by the Operator and ready to commence the work in accordance with the well program and the other provisions of this Contract.

(b) **Operator's Items** mean the equipment, materials and services which are listed in the Appendices that are to be provided by or at expense of the Operator;

(c) **Contractor's Items** mean the equipment, materials and services which are listed in the Appendices that are to be provided by or at expense of Contractor;

(d) **Contractor's Personnel** means the personnel to be provided by Contractor from time to time to conduct operations hereunder as listed in the Appendices;

(e) **Operating Area** means those lands where the Operator may from time to time be entitled to conduct drilling operations as delineated in Appendix A;

(f) **Affiliated Company** means a company owning 50% or more of the stock of the Operator or the Contractor, a company in which the Operator or the Contractor owns 50% or more of its stock, or a company 50% or more of whose stock is owned by the same company that owns 50% or more of the stock of the Operator or the Contractor;

(g) **Operations Base** means the place or places designated as such by the Operator from time to time;

(h) **Drilling Rig** means the rig, rig equipment, drill site buildings and rig camp buildings as described fully in Appendix B.

102. CURRENCY

In this Contract, all amounts expressed in dollars are US dollar amounts.

103. CONFLICTS

The Appendices hereto are incorporated herein by reference. If any provision of the Appendices conflicts with a provision in the body hereof, the latter shall prevail.

104. HEADINGS

The paragraph headings shall not be considered in interpreting the text of this Contract.

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105. FURTHER ASSURANCES

Each party shall perform the acts and execute and deliver the documents and give the assurances necessary to give effect to the provisions of the Contract.

106. CONTRACTOR'S STATUS

The Contractor shall be an independent contractor in performing its obligations hereunder.

107. GOVERNING LAW

This Contract shall be construed and the relations between the parties determined in accordance with the law designated in Appendix A, not including, however, any of its conflicts of law rules which would direct or refer to the laws of another jurisdiction.

ARTICLE II – TERM

201. EFFECTIVE DATE

The parties shall be bound by this Contract when each of the parties has executed this Contract (hereinafter referred to as the 'Effective Date') subject to the conditions detailed in Appendix A.

202. DURATION

This Contract shall, subject to Paragraphs 203 and 204 below, be valid for the term specified in Appendix A.

203. TERMINATION

This Contract shall terminate:

(a) Immediately if the Drilling Rig becomes an actual or constructive total loss;

(b) After the number of wells or on the date specified in Appendix A or, if operations are then being conducted on a well, as soon thereafter as such operations are completed and the Drilling Rig has been demobilized as specified in Appendix A.

(c) Immediately if the Contractor fails to perform under the terms and conditions set forth herein, in particular regarding the non-performance on commencement date, evidence of basic rig equipment and manpower deficiencies, evidence of violating the safety obligations, evidence of not

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protecting the area and site environmental standards, evidence of unsatisfactory performance, evidence of the disclosure of confidential information.

(d) At any time sixty (60) days after the Operator provides written notice of termination.

(e) In accordance with Paragraph 707

(f) In accordance with paragraph 802

204. OPTION TO EXTEND

The Operator may extend the duration of this Contract for an additional period by giving notice thereof to the Contractor subject to mutually agreed rates, terms and conditions, all specified in Appendix A.

203. CONTINUING OBLIGATIONS

Notwithstanding the termination of this Contract, the parties shall continue to be bound by the provisions of this Contract that reasonably require some action or forbearance after the cessation of the day rates provided for hereinafter.

204. RETURN OF OPERATOR'S ITEMS

Upon termination of this Contract, the Contractor shall return to the Operator any of the Company's Items which are at the time in the Contractor's possession.

ARTICLE III – CONTRACTOR'S PERSONNEL

301. NUMBER, SELECTION, HOURS OF LABOR AND REMUNERATION

Except where herein otherwise provided, the selection, replacement, hours of labor and remuneration of the Contractor's personnel shall be determined by the Contractor. Such employees or subcontractor's employees shall be the employees solely of the Contractor and its subcontractors.

302. PROVIDING PERSONNEL

The Contractor shall have its personnel available at the proper drilling location or at a mutually agreed place ready to conduct operations hereunder.

303. CONTRACTOR'S REPRESENTATIVE

ARTICLE V – CONTRACTOR'S GENERAL OBLIGATIONS

501. CONTRACTOR'S STANDARD OF PERFORMANCE

The Contractor shall carry out all operations hereunder on a daywork basis. For purposes hereof the term "daywork basis" means the Contractor shall furnish equipment, labor, and perform services as herein provided, for a specified sum per day under the direction and supervision of the Operator (which term is deemed to include any employee, agent, consultant or sub-contractor engaged by the Operator to direct drilling operations). When operating on daywork basis, the Contractor shall be fully paid at the applicable rates of payment and assumes only the obligations and liabilities stated herein. Except for such obligations and liabilities specifically assumed by the Contractor, the Operator shall be solely responsible and assumes liability for all consequences of operations by both parties while on a daywork basis, including results and all other risks or liabilities incurred in or incident to such operations, notwithstanding any breach of representation or warranty, either expressed or implied, or the negligence or fault of the Contractor, its employees, agents or servants, including sole, concurrent and gross negligence, either active or passive, latent defects and any liability based on any theory of tort, breach of contract or strict liability, including defect or ruin of premises, either latent or patent.

The Contractor shall submit for the Operator's approval copies of the following documents prior to spud:

1. Contractor's HSE plan and manuals
2. Well control policy plan and manuals, and
3. DPR permit to operate Rig 201 in Nigeria

502. PERFORMANCE OF THE DRILLING RIG

The Contractor represents that the Drilling Rig is be capable of drilling to a depth of 15,000 feet using the rig's 5" drill pipe string.

Should the Operator have any drill pipe requirements in excess of that furnished by the Contractor with the Drilling Rig as per Appendix B hereto, the Contractor shall use its best efforts to secure same at the best pricing available. Any such additions will be charged to the Operator's account at cost to the wellsite plus a handling fee as set forth in Appendix A.

503. OPERATION OF DRILLING RIG

Subject to Paragraph 606, the Contractor shall be solely responsible for the operation of the Drilling Rig, including, without limitation, supervising moving operations, and positioning the Drilling Rig and Camp at locations as required

other charges will be accompanied by invoices supporting costs incurred for the Operator or other substantiation as required.

802. PAYMENT

The Operator shall pay by telegraphic transfer all billings within thirty days after receipt thereof except that if the Operator disputes an item billed, the Company shall within twenty days after receipt of the bill, notify the Contractor of the item disputed, specifying the reason therefore, and payment of the disputed item shall be withheld until settlement of the dispute, but payment shall be made of any undisputed portion. Any sums (including amounts ultimately paid with respect to a dispute invoice) not paid within thirty days after receipt of invoice shall bear interest at the Libor rate plus two (2) percent per month or the maximum allowed by law, whichever is less, or pro rata thereof from said due date until paid. If the Operator refuses to pay undisputed items, the Contractor shall have the right to terminate this contract.

803. MANNER OF PAYMENT

All payments due by the Operator to the Contractor hereunder shall be made in U.S. dollars at the Contractor's bank as specified in Appendix A. It is understood that the Contractor shall have the right to specify that the Operator pay the Contractor in the currency of the country where the Drilling Rig operates in amounts equal to the Contractor's local currency expenditures (including those expenditures incurred locally by the Contractor for the account of the Operator) and as needed by the Contractor. All amounts of local currency so paid the Contractor during the month shall be credited against the Contractor's U.S. dollar monthly invoice for the rate of exchange of U.S. dollars for the local currency in effect on the date the Contractor makes the local currency payment as published by the Central Bank of Nigeria.

ARTICLE IX – LIABILITY

901. EQUIPMENT OR PROPERTY

Excepts as specifically provided herein to the contrary, each party hereto shall at all times be responsible for and shall hold harmless and indemnify the other party from and against damage to or loss of its own equipment or property, regardless of the cause of loss, including the negligence of such party, and despite the fact that a party's items may be under the control of the other party, except that:

(a) The Operator shall, to the extent the Contractor's Insurance does not compensate the Contractor therefore, be responsible at all times for damage

to or destruction of the Contractor's equipment or property caused by exposure to unusually corrosive or otherwise destructive elements, including those which are introduced into the drilling fluid from subsurface formations or the use of corrosive additives in the fluid.

(b) The Operator shall, to the extent the Contractor's Insurance does not compensate the Contractor therefore, be responsible for damage to or loss of the Contractor's drill string, and shall reimburse the Contractor for such damage or loss at the depreciated value of the item so lost or damaged; with the understanding, however, that the indemnity granted in this Clause 1001 shall not indemnify either party for liabilities incurred by it as a result of obligations undertaken in a contract with a third party.

902. THE HOLE

In the event the hole should be lost or damaged, the Operator shall be solely responsible for such damage to or loss of the hole, including the casing therein, regardless of whether such loss or damage was caused by the negligence of the Contractor, or its employees, or agents of its subcontractors.

903. INSPECTION OF MATERIALS FURNISHED BY OPERATOR

The Contractor agrees to visually inspect all materials furnished by the Operator before using same and to notify the Contractor of any apparent defects therein. The Contractor shall not be liable for any loss or damage resulting from the use of materials furnished by the Operator.

904. CONTRACTOR'S PERSONNEL

The Contractor agrees to protect, defend, indemnify, and save harmless the Operator, its officers, directors, employees and joint owners from and against all claims, demands and causes of action of every kind and character, without limit and without regard to the cause or causes thereof or the negligence of any party or parties, arising in connection herewith in favor of the Contractor's employees or of the Contractor's subcontractors or their employees, or the Contractor's invitees, on account of bodily injury, death or damage to property. If it is judicially determined that the monetary limits of insurance required hereunder or of the indemnities voluntarily and mutually assumed under paragraph 1004 (which the Contractor and the Operator hereby agree will be supported either by available liability insurance, under which the insurer has no right of subrogation against the indemnities, or voluntarily self-insured, in part or whole) exceed the maximum limits permitted under applicable law, it is agreed that said insurance requirements or indemnities shall automatically be amended to conform to the maximum monetary limits permitted under such law.

905. OPERATOR'S PERSONNEL

The Operator agrees to protect, defend, indemnify, and save harmless the Contractor, its officers, directors and employees from and against all claims, demands, and causes of action of every kind and character, without limit and without regard to the cause or causes thereof or the negligence of any party or parties, arising in connection herewith in favor of the Operator's employees or the Operator's contractors or their employees, or the Operator's invitees, other than those parties identified in paragraph 1004 on account of bodily injury, death or damage to property. If it is judicially determined that the monetary limits of insurance required hereunder or of the indemnities voluntarily and mutually assumed under paragraph 1005 (which the Contractor and the Operator hereby agree will be supported either by available liability insurance, under which the insurer has no right of subrogation against the indemnitee, or voluntarily self-insured, in part or whole) exceed the maximum limits permitted under applicable law, it is agreed that said insurance requirements or indemnities shall automatically be amended to conform to the maximum monetary limits permitted under such law.

906. POLLUTION AND CONTAMINATION

Notwithstanding anything to the contrary contained herein, it is understood and agreed by and between the Contractor and the Operator that the responsibility for pollution or contamination shall be as follows:

(a) The Contractor will use its best efforts to assure that all operations undertaken on the drill site meet the environmental standards established by the Government of Nigeria, particularly with regard to maintaining zero discharge levels on drilling fluids and formation cuttings.

(b) The Contractor shall assume all responsibility for cleaning up and containing pollution or contamination which originates above the surface from improper care or disposition of items wholly in the Contractor's possession and control and directly associated with the Contractor's equipment and facilities.

(c) The Operator shall assume all responsibility for (including control and removal of the pollutant involved) and shall protect, defend, indemnify and save harmless the Contractor from and against all claims, demands, and causes of action of every kind and character arising directly or indirectly from all pollution or contamination, other than that described in subclause (b) above, which may occur from the negligence of the Contractor or otherwise during the term of this Contract or as a result of operations hereunder, including, but not limited to, that which may result from fire, blowout, cratering, seepage or any other controlled flow of oil, gas, water or other substance, as well as the use or disposition of oil emulsion, oil base or chemically treated

drilling fluids, contaminated cuttings or cavings, lost circulation and fish recovery materials and fluids.

(d) In the event a third party commits an act or omission which results in pollution or contamination for which either the Contractor or the Operator for whom such party is performing work is held to be legally liable, the responsibility therefore shall be considered, as between the Contractor and the Operator, to be the same as if the party for whom the work was performed had performed the same and all of the obligations respecting defense, indemnity holding harmless and limitation of responsibility and liability, as set forth in (b) and (c) above, shall be specifically applied.

907. COST OF CONTROL

The Operator shall be liable for the cost of regaining control of any wild well and shall indemnify the Contractor for such cost regardless of the cause thereof, including, but not limited to, the negligence of the Contractor, its agents, employees or subcontractors.

908. UNDERGROUND DAMAGE

The Operator agrees to defend and indemnify the Contractor for any and all claims and including, but not limited to, claims arising as a result of the negligence of the Contractor, its agents, employees or subcontactors against the Contractor resulting from operations under this Contract on account of injury to, destruction of, or loss or impairment or any property right in or to oil, gas, or other material substance or water, if at the time of the act or omission causing such injury, destruction, loss, or impairment, said substance had not been reduced to physical possession above the surface, and for any loss or damage to any formation, strata, or reservoir beneath the surface.

909. CONSEQUENTIAL DAMAGES

Neither party shall be liable to the other for special, indirect, or consequential damages resulting from or arising out of this Contract, including, without limitation, loss or profit or business interruptions, however same may be caused.

910. INDEMNITY OBLIGATION

Except as otherwise expressly limited herein, it is the intent of parties hereto that all indemnity obligations and/or liabilities assumed by such parties under terms of this Contract, including, without limitation, clauses 1001 through 1009 hereof, be without limit and without regard to the cause or causes thereof (including pre-existing conditions), strict liability, or the negligence of any party or parties, whether such negligence be sole, joint or concurrent, active or passive.

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ARTICLE X – INSURANCE

1001. CONTRACTOR'S INSURANCE

The Contractor shall carry and maintain the insurance shown in Appendix C. The Contractor may from time to time with the prior approval of the Operator change the insurance it carries. The Contractor will increase its insurance beyond the limits provided for herein or will change its insurance if required by the Operator, but any additional cost will be paid by the Operator.

1002. POLICIES AND RECEIPTS

The Contractor will furnish the Operator with certificates of all its insurance policies relating to Contractor's operations hereunder.

1003. SUBROGATION

For liabilities assumed hereunder by the Contractor, its insurance shall be endorsed to provide that the underwriters waive their right of subrogation against the Operator. The Operator will, as well, cause its insurer to waive subrogation against the Contractor for liability it assumes.

ARTICLE XI – SUBLETTING AND ASSIGNMENT

1101. SUBCONTRACTS BY OPERATOR

The Operator may employ other contractors to perform any of the operations or services to be provided or performed by the Company according to Appendix A.

1102 ASSIGNMENT

Neither party may assign this Contract to anyone other than an affiliated company without the prior written consent of the other, and prompt notice of any such intent to assign shall be given to the other party. In the event of such assignment, the assigning party shall remain liable to the other party as a guarantor of the performance by the assignee of the terms of this Contract. If any assignment is made that alters the Contractor's financial burden, the Contractor's compensation shall be adjusted to give effect to any increase or decrease in the Contractor's operating costs or in taxes in the new operating area.

ARTICLE XIII – NOTICES

APPENDIX 3

CONTRACT [redacted]

BETWEEN

THE SHELL PETROLEUM DEVELOPMENT COMPANY OF NIGERIA LIMITED

AND

[redacted] (NIGERIA) LIMITED

FOR

[redacted]

App. 3 Cont.

PART 2
CONDITIONS OF CONTRACT

Cont.

CONTENTS

10.1.3 The above COMPANY's audit rights shall continue for a period of two (2) years after Termination of the Contract. CONTRACTOR shall preserve and shall cause its Subcontractors to preserve all documents for the same period.

10.2 Technical, Safety and Environmental Audits

COMPANY shall have the right to subject all or part of CONTRACTOR's or Subcontractor's facilities, equipment, Materials and Personnel employed and operations undertaken in the performance of the Work, to technical, safety and environmental audits as considered necessary by COMPANY.

10.3 Audit of Subcontractors

CONTRACTOR shall cause Subcontractors to give COMPANY the audit rights set out in Articles 10.1 and 10.2.

10.4 Disclosure of Secrets

Nothing in this Article 10 shall require disclosure of CONTRACTOR's trade secrets or proprietary information without COMPANY signing a secrecy agreement limited to such trade secrets or proprietary information.

Article 11 - Liability for Equipment, Personnel and Operations

11.1 General

11.1.1 For the purpose of this Article the word "claim" shall always mean collectively all claims, demands, causes of action, judgments, (and shall be deemed to include legal costs and fees) which are brought or may be instituted or rendered during the duration of the Contract or at any time thereafter.

11.1.2 It is the intention of the parties hereto that the provisions of this Article 11 shall exclusively govern the allocation of risks and liabilities and the undertaking of indemnifications of parties to the Contract with respect to the matters defined in this Article 11 of the Contract.
In construing the provisions of this Article 11, the parties agree that the reasonableness of any provision should not be considered in isolation but rather that all the provisions of Article 11 should be construed together and in conjunction with the insurance provisions of this Contract in the light of the parties' desire to obtain a clear cut delineation of risks to each party.

11.1.3 For the purpose of this Article 11, the benefit of any indemnity given in favour of "COMPANY" and "CONTRACTOR" shall always be deemed to include their respective directors, Personnel, Co-Venturers and Affiliates and Co-Venturers' and Affiliates' respective personnel.

11.1.4 For the purposes of this Article 11 only, a Visitor introduced to the Site by either party, shall be deemed to be such party's Personnel.

11.1.5 The provisions of Article 11 concerning loss of or damage to COMPANY Items, CONTRACTOR Items and their respective other property and concerning third party liability (Article 11.5) apply only to occurrences and incidents at the Site (whether or not the effects are limited to the Site).

11.2 COMPANY Property and Personnel

11.2.1 General

Subject to Article 11.1.5 COMPANY shall be responsible for and shall defend and indemnify CONTRACTOR and all Subcontractors against:

(i) all loss or damage to the COMPANY Items and to the property of COMPANY, Other CONTRACTORs and their respective personnel at the Site, and

(ii) any personal injury, including fatal injury and disease, to the respective personnel of COMPANY and Other CONTRACTORs attributable to the Site however caused that arises out of or is connected with performance of the Work regardless of whether the negligence or breach

of duty of CONTRACTOR or Subcontractors caused or contributed to such loss, damage or personal injury.

11.2.2 The Hole or Well

COMPANY shall be responsible for and shall defend and indemnify CONTRACTOR and its Subcontractors against all loss of or damage to the hole, the well or casing therein, or the cost of regaining control of a wild well, except where Negligence or breach of duty of CONTRACTOR or its Subcontractors caused or contributed to such losses or damage. In such event CONTRACTOR's liability will be limited to performing all remedial work at a reduced rate or other rate, as the case may be, as specified in Schedule of Prices and Rates [Part 9] of the Contract unless otherwise explicitly provided for. Requiring the performance of the remedial work at the reduced rates set out above shall be COMPANY's sole remedy against CONTRACTOR for the Negligence or breach of duty and COMPANY shall defend and indemnify CONTRACTOR and all Subcontractors against any further liability to COMPANY, Co-Venturers and their respective Affiliates, subject to the other provisions of this Article 11.

Remedial work shall be deemed to have started immediately after the loss or damage in question and shall end either

(i) when the hole, well or casing is restored to the state it was in immediately prior to the loss or damage or

(ii) when a new replacement well reaches the same depth and is in the same condition as the old well immediately prior to the loss or damage or

(iii) where restoration or redrilling is impossible, when the well in question has been properly abandoned in accordance with good oil-field practice.

For the purpose of this Article "remedial work" means:

(i) doing all other things necessary or expedient with CONTRACTOR's Items, Personnel and any other resources to restore the situation to the one contracted for (including without limitation, as may be applicable, inspections to locate the hole, damage surveys, removal of debris and wreckage re-entry into and/or making safe the old well, redrilling and running casing.

11.2.3 The Reservoir(s) or Geological Formations(s)

COMPANY shall be responsible for, and shall defend and indemnify CONTRACTOR and its Subcontractors against for all loss of or damage to the underground reservoir(s) or geological formation(s) and the loss of product therefrom, whether or not the negligence or breach of duty of CONTRACTOR or Subcontractors caused or contributed to such loss or damage.

11.3 CONTRACTOR Property and Personnel

11.3.1 General

Subject to Article 11.1.5 CONTRACTOR shall be responsible for and shall defend and indemnify COMPANY and all Other CONTRACTORs against:

(i) all loss or damage to the CONTRACTOR Items and to the property of CONTRACTOR, Subcontractors and their respective personnel at the Site, and

(ii) any personal injury, including fatal injury and disease, to the respective personnel of CONTRACTOR and Subcontractors attributable to the Site

however caused that arises out of or is connected with performance of the Work or the provision of medical assistance under Article 6.8 regardless of whether the negligence of COMPANY or Other CONTRACTORs caused or contributed to such loss, damage or personal injury.

11.3.2 Down-hole Equipment

11.3.2.1 Notwithstanding the provisions of article 11.3.1., loss or destruction of or damage to CONTRACTOR's or any Subcontractor's down-hole equipment, while operating with such equipment within a well, or conductor or riser, excluding however damages or losses due to CONTRACTOR's or such Subcontractor's Negligence, shall be reimbursed by COMPANY at depreciated replacement costs as determined in Schedule of Prices and Rates [Part 9] of the Contract or if appropriate at the repair cost whichever is less. In each instance, however, COMPANY shall only reimburse the amount of loss or destruction or damage which is in excess of the deductable amount specified in the Schedule of Prices and Rates [Part 9].

11.3.2.2 CONTRACTOR's or Subcontractor's Negligence referred to in this Article 11.3.2 will include, but not be limited to, CONTRACTOR or Subcontractor not having adequately maintained the down-hole equipment or replaced worn-out materials in time.

11.3.2.3 Notwithstanding COMPANY's obligations under this Article 11.3.2, down-hole equipment lost or damaged as aforesaid shall be replaced or repaired by CONTRACTOR or Subcontractor as soon as practicable. Normal wear and tear in the above-mentioned down-hole equipment will not be classified as damage.

11.3.2.4 If any of CONTRACTOR's down-hole equipment becomes lodged or lost in a well COMPANY may at its sole discretion decide to fish for such equipment or abandon it or discontinue any fishing operation already commenced at any time. COMPANY shall undertake any fishing operations it decides to carry out. CONTRACTOR shall render assistance for such fishing operations in accordance with the Contract. If COMPANY does not pursue or discontinues fishing operations then Article 11.3.2.1 shall apply to compensate CONTRACTOR for lost down-hole equipment.

11.3.2.5 COMPANY recognises that it is responsible vis-à-vis the government and other local authorities having jurisdiction over radioactive sources for retrieval from the hole or abandonment in the hole of radioactive sources lodged or lost in a well and for retrieval of radioactive sources from the seabed at the Site.

11.3.2.6 CONTRACTOR shall be entitled to monitor, at no extra cost to COMPANY any recovery or abandonment efforts described in Articles 11.3.2.4 and 11.3.2.5, without incurring additional liability or responsibility therefore to that specified above.

11.3.3 Abnormally Abrasive/Corrosive Elements

Notwithstanding the provisions of Article 11.3.1, loss or destruction of or damage to CONTRACTOR's Items due to excessive wear caused by exposure to abnormally abrasive or corrosive elements which loss, destruction or damage could not have been prevented by the use of more appropriately graded equipment or normal operational practices by CONTRACTOR or Subcontractor as applicable, excluding however damages or losses of the equipment concerned due to Negligence of the CONTRACTOR or Subcontractor, shall be reimbursed by the COMPANY at depreciated replacement costs determined in Schedule of Prices and Rates [Part 9] of the Contract. If the replacement cost of the equipment lost or damaged is not detailed in the Schedule of Prices and Rates [Part 9] of the Contract, CONTRACTOR and COMPANY shall meet to agree the value based on documented cost, the actual age of the lost or damaged equipment and depreciation rates for other similar equipment specified in the Contract. In such instance, however, COMPANY shall only reimburse the amount of loss or destruction or damage which is in excess of the deductible amount specified in the Schedule of Prices and Rate [Part 9].

11.3.4 War and Confiscation Risk

Subject to Article 11.3.4.1 below, CONTRACTOR acknowledges that its responsibility and right to indemnity as detailed in Article 11.3.1 includes explicitly the events of:

(a) war, insurrection, civil commotion, hostilities (whether or not war be declared or civil war recognised) sabotage, violence, seizure, riot, rebellion, blockage, revolution and embargo, by whosoever carried out and/or in any case.

(b) nationalisation, expropriation, confiscation, sequestration and any other orders and/or acts of any competent authority or any purported authority which affects the liberty or the rights in property of persons generally or that of CONTRACTOR specifically.

11.3.4.1 Notwithstanding any other provisions in the Contract, the parties acknowledge that CONTRACTOR's war risk (or similar) insurance in respect of the drilling rig may be cancelled or the premium increased by CONTRACTOR's underwriters upon seven (7) days' and two (2) day's notice respectively and agree as follows in respect thereto. In such event, CONTRACTOR shall immediately notify COMPANY in writing. The parties shall agree in good faith the best and most prudent action under the circumstances.

11.4 Loss or Damage During Transportation

Liability for loss of or damage to any party's property (i) being transported to or from a Site or (ii) outside a Site when not caused by an occurrence or incident at a Site, shall be determined by applicable law.

11.5 Third Parties

Subject to Article 11.1.5 and without prejudice to any other express liability or indemnity provision of this Contract, each party shall be responsible and liable for any and all claims resulting from:

(a) personal injury, including fatal injury and disease, to Third Parties and/or;

(b) loss of or damage to property of Third Parties to the extent it is liable in accordance with applicable law.

The liability assumed herein by CONTRACTOR shall be limited to **US $10,000,000 (ten million US Dollars)** for any one accident or series of accidents arising out of any one occurrence and in excess of such level liability shall be assumed by COMPANY but only to the extent that such liability arises out of or is connected with performance of the Work.

11.6 COMPANY/CONTRACTOR and Pollution

11.6.1 In this Article 11.6:

(a) "Reservoir Fluids" means crude oil, natural gas, water and any other substance flowing from a subsurface reservoir either singly or in any mixture or combination.

(b) "Petroleum Product" means any fuel, lubricant, or other man-made hydrocarbon produce that is not a Reservoir Fluid whether in a pure or contaminated state and whether held for use or as a waste product after use.

(c) "Uncontrolled Flow" in relation to Reservoir Fluids means a catastrophic, escape that cannot be controlled by following ordinary procedures at the Site but which can only be controlled if at all by extraordinary measures.

(d) "Escape or escape" in relation to any fluid or substance includes any discharge, release or other dispersal of such fluid or substance.

11.6.2 COMPANY shall defend and indemnify CONTRACTOR against all claims for loss, damage or expense (including cost of control and/or clean-up of the pollutant) arising from or relating to contamination or pollution which results in whole or in part from:

(a) fire, blowout, cratering or Uncontrolled Flow or Reservoir Fluids regardless of cause;

(b) seepage of Reservoir Fluids from the seabed or surface of the land, or any other escape of Reservoir Fluids from any point upstream of the primary surface shut-off control valve of the well in question regardless of cause; and

(c) subject to Article 11.6.3, the possession, use or disposal by Other CONTRACTORs of Reservoir Fluids, Petroleum Products and other substances (including without limitation

3 Cont.

contaminated cuttings, and lost circulation and fish recovery materials and fluids) that are connected with the Work or wells to be drilled for COMPANY.

11.6.3 CONTRACTOR shall defend and indemnify COMPANY against all claims for loss, damage or expense (including cost of control and/or clean-up of the pollutant) arising from or relating to contamination or pollution which results in whole or in part from:

(a) any escape (other than an Uncontrolled Flow) of Reservoir Fluids from CONTRACTOR's Items at any point downstream of the primary surface shut-off valve of the well in question;

(b) subject to Article 11.6.3(c), any escape from CONTRACTOR's Items or from CONTRACTOR's or any Subcontractor's possession or control of any Petroleum Product, pipe dope, garbage, sewage, debris or other substance (excluding Reservoir Fluids) whether or not caused or contributed to by the negligence or breach of duty of COMPANY or of any Other CONTRACTOR; and

(c) any escape attributable to the negligence or breach of duty of CONTRACTOR or any Subcontractor of any oil emulsion, oil base or chemically treated drilling fluids or of lost circulation and fish recovery materials when such items are in the possession or control of CONTRACTOR or of any Subcontractor.

11.6.4 The provisions of this Article 11.6 apply only to contamination or pollution emanating from the Site or from the immediate vicinity of the Site that is connected with drilling and/or associated operations at the Site.

11.7 Liens

Each party shall indemnify the other party for and against any liens issued against the Works, Items, Materials, equipment or other goods in consequence of any default by such party or its Subcontractor or Other CONTRACTOR as the case may be. Each party shall notify the other party immediately of any possible lien which may affect the Work, Items, Materials, equipment or other goods.

11.8 Consequential Damages

Subject to any express provisions to the contrary, COMPANY and CONTRACTOR agree that they and their Other CONTRACTORs and Subcontractors shall in no event be liable one to the other for their respective indirect losses and loss of revenue, profit or anticipated profits whether or not due in whole or in part to the negligence of either party except to the extent of any liquidated damages provided for in Contract and except for any monies due in accordance with Article 16.4 (Patents and Royalties).

11.9 Indemnities

11.9.1 Extent of Indemnities

The indemnities given in favour of a party under this Contract shall cover, all sums incurred in satisfaction of the judgment of any court of law, and all sums including costs, legal fees and expenses incurred in dealing with, settling or forestalling any claims or demands made against the indemnified party. Unless otherwise expressly stated to the contrary, all assumption of liability and indemnities are intended to apply notwithstanding the sole or concurrent negligence of any party, pre-existing defects, breach of representation or warranty or any other theory of legal liability.

11.9.2 Survival of Provisions

The provisions of this Article 11 (Liabilities for Equipment, Personnel and Operations) shall survive Termination of this Contract.

11.9.3 Extension of Indemnities to Subcontractors, etc.

To the extent that either party ("the first named party") shall have indemnified its Personnel or its Other CONTRACTORs or Subcontractors Personnel against any claim in respect of personal injury (including fatal injury and disease) loss or damage (which it shall at its sole discretion be entitled to do) and if such

RISK ALLOCATION BETWEEN AN OPERATOR AND A CONTRACTOR IN INDONESIA.

APPENDIX 4

NOTE: ONLY THESE FEW PAGES WERE GIVEN.

17.0 INDEMNIFICATION

17.1 CONTRACTOR shall be liable for, and shall indemnify (and promptly reimburse) and hold harmless the Indemnitees in respect of, Losses arising out of or in connection with:

17.1.1 injury to or death of any CONTRACTOR Personnel or loss of or damage to any property owned or used by CONTRACTOR, Affiliate of CONTRACTOR or subcontractor due to any cause whatsoever, regardless of any breach of the Contract or any negligent act or omission by the Indemnitee, notwithstanding Article 17.2;

17.1.2 injury to or death of any person other than CONTRACTOR Personnel or the Indemnitee (in this Article 17.0, a "Third Party"), or loss of or damage to any property of a Third Party, due to CONTRACTOR's or the CONTRACTOR Personnel breach of duty or negligence, provided that if such Losses are attributable to the joint negligence of CONTRACTOR or the CONTRACTOR Personnel and COMPANY, each of CONTRACTOR and COMPANY shall be responsible for such Loss to the extent of their respective negligence;

17.1.3 damage to the environment arising out of or in connection with CONTRACTOR's performance of the Contract including pollution or contamination which emanates from the equipment used by, or pollutants which are in the possession and control of or which are in transit arranged by, CONTRACTOR or any CONTRACTOR Personnel in the

17.0 PENGGANTIAN KERUGIAN

17.1 KONTRAKTOR bertanggung jawab untuk, dan harus mengganti rugi (dan segera membayarkan kembali) serta membebaskan Penerima Ganti Rugi sehubungan dengan, Kerugian yang timbul dari atau sehubungan dengan:

17.1.1 cidera atau kematian dari Personil KONTRAKTOR atau kerugian dari atau kerusakan terhadap properti yang dimiliki atau digunakan oleh KONTRAKTOR, Afiliasi dari KONTRAKTOR atau subkontraktor karena sebab apapun, tanpa memperhatikan suatu pelanggaran Kontrak atau suatu tindakan alpa atau kelalaian oleh suatu Penerima Ganti Rugi, dengan tidak mengesampingkan Pasal 17.2;

17.1.2 cidera atau kematian dari orang selain dari Personil KONTRAKTOR atau Penerima Ganti Rugi (dalam Pasal 17.0 ini, "Pihak Ketiga"), atau kerugian dari atau kerusakan terhadap properti milik Pihak Ketiga, yang disebabkan oleh pelanggaran kewajiban atau kelalaian KONTRAKTOR atau Personil KONTRAKTOR, dengan ketentuan bahwa jika Kerugian tersebut diakibatkan oleh kelalaian bersama dari KONTRAKTOR atau Personil KONTRAKTOR dan PERUSAHAAN, masing-masing dari KONTRAKTOR dan PERUSAHAAN akan bertanggung jawab atas Kerugian tersebut sampai sebatas kelalaiannya masing-masing;

17.1.3 kerusakan lingkungan yang timbul dari atau sehubungan dengan pelaksanaan Kontrak oleh KONTRAKTOR termasuk polusi atau pencemaran yang disebabkan oleh peralatan yang digunakan oleh, atau sumber polusi yang dimiliki atau dikendalikan atau berada dalam pengangkutan yang diatur oleh, KONTRAKTOR atau

1

4 Cont

performance of the Contract, except to the extent such Losses are directly caused by the Gross Negligence of COMPANY; and

17.1.4 CONTRACTOR's violation of or failure to comply with any applicable Laws or instructions given by COMPANY arising out of or in connection with CONTRACTOR's performance of the Contract.

17.2 Notwithstanding anything in the Contract to the contrary but subject to Article 17.1 and Article 17.3, COMPANY shall be responsible for, and shall indemnify (and promptly reimburse) and hold harmless CONTRACTOR in respect of Losses arising out of or in connection with:

17.2.1 injury to or death of the Indemnitee or loss of or damage to any property owned by the Indemnitee due to any cause whatsoever;

17.2.2 injury to or death of any Third Party, or loss of or damage to any property of a Third Party, arising out of or in connection with COMPANY's breach of duty or negligence, provided that if such Loss is attributable to the joint negligence of CONTRACTOR and COMPANY, each of the CONTRACTOR and COMPANY shall be responsible for such Loss to the extent of their respective negligence;

17.2.3 pollution arising out of spills emanating from the equipment of COMPANY or its Affiliates provided such equipment is in the care, custody and control of COMPANY or

Personil KONTRAKTOR dalam pelaksanaan Perjanjian, kecuali sepanjang Kerugian tersebut secara langsung disebabkan oleh Kelalaian Berat dari PERUSAHAAN; dan

17.1.4 pelanggaran atau kegagalan KONTRAKTOR untuk mematuhi setiap Hukum yang berlaku atau instruksi yang diberikan oleh PERUSAHAAN yang timbul dari atau sehubungan dengan pelaksanaan Kontrak oleh KONTRAKTOR.

17.2 Dengan tidak mengesampingkan setiap hal dalam Kontrak yang bertentangan namun tunduk pada Pasal 17.1 dan Pasal 17.3, PERUSAHAAN bertanggung jawab untuk, dan akan mengganti rugi (dan segera membayarkan kembali) serta membebaskan (dan segera membayarkan kembali) KONTRAKTOR sehubungan dengan, Kerugian yang timbul dari atau sehubungan dengan:

17.2.1 cidera atau kematian dari Penerima Ganti Rugi atau kerugian dari atau kerusakan terhadap properti yang dimiliki oleh Penerima Ganti Rugi karena sebab apapun;

17.2.2 cidera atau kematian dari Pihak Ketiga, atau kerugian dari atau kerusakan terhadap properti milik Pihak Ketiga, yang timbul dari atau sehubungan dengan pelanggaran kewajiban atau kelalaian PERUSAHAAN, dengan ketentuan bahwa jika Kerugian tersebut disebabkan oleh kesalahan bersama dari KONTRAKTOR dan PERUSAHAAN, masing-masing dari KONTRAKTOR dan PERUSAHAAN akan bertanggung jawab untuk Kerugian tersebut sampai sebatas kelalaiannya masing-masing;

17.2.3 polusi yang berasal dari tumpahan yang berasal dari peralatan PERUSAHAAN atau Afiliasinya dengan ketentuan bahwa peralatan tersebut berada dalam

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Affiliate;

17.2.4 radiation damage, blowout, cratering or other uncontrolled well condition within the Area of Operations; and

17.2.5 loss of or damage to any underground reservoir or well or destruction of any property right in or to oil, gas or other mineral substance, water or geothermal resource,

except, in relation to paragraph 17.2.3, 17.2.4 and 17.2.5 only, if such Loss is the result of the negligence of CONTRACTOR or the CONTRACTOR Personnel or an Affiliate of CONTRACTOR or employees, officers or agents of that Affiliate, in which case CONTRACTOR shall be responsible for and shall indemnify and hold harmless the Indemnitees for such Losses. The CONTRACTOR's liability under this Article 17.2 shall not exceed US$1,000,000.

17.3 It is expressly agreed that neither COMPANY nor CONTRACTOR shall be responsible to the other for loss of profits, loss of use of assets, loss of revenue or similar indirect or consequential damages.

17.4 Any provision of the Contract which is expressed to be in favour of an Indemnitee may be enforced by COMPANY on behalf of the Indemnitee. For that purpose:

17.4.1 COMPANY may commence proceedings in its own name to enforce all obligations and liabilities of CONTRACTOR and to make any claim which any Indemnitee may have against CONTRACTOR; and

pemeliharaan, perawatan dan kendali PERUSAHAAN atau Afiliasi;

17.2.4 kerusakan radiasi, ledakan, *cratering* atau keadaan sumur yang tidak terkendali lainnya dalam Wilayah Operasi; dan

17.2.5 kerugian dari atau kerusakan terhadap *reservoir* bawah tanah atau sumur atau kerusakan terhadap properti tepat di dalam atau terhadap minyak, gas atau kandungan mineral lainnya, air atau sumber daya panas bumi,

kecuali, terkait ayat 17.2.3, 17.2.4 dan 17.2.5 saja, jika Kerugian tersebut adalah akibat dari kelalaian KONTRAKTOR atau Personil KONTRAKTOR atau suatu Afiliasi dari KONTRAKTOR atau karyawan, petugas atau agen Afiliasi tersebut, dalam hal tersebut KONTRAKTOR akan bertanggung jawab terhadap dan akan mengganti rugi dan membebaskan Penerima Ganti Rugi dari Kerugian tersebut. Tanggung jawab KONTRAKTOR berdasarkan Pasal 17.2 ini tidak akan melebihi US$1.000.000.

17.3 Telah disepakati secara tegas bahwa baik PERUSAHAAN maupun KONTRAKTOR tidak akan bertanggung jawab kepada pihak lainnya untuk kehilangan keuntungan, kerugian dari penggunaan aset, kehilangan pendapatan atau kerugian secara tidak langsung atau kerugian sebab akibat yang serupa.

17.4 Setiap ketentuan dari Kontrak yang secara tegas dinyatakan untuk kepentingan Penerima Ganti Rugi dapat dilaksanakan oleh PERUSAHAAN yang mengatasnamakan Penerima Ganti Rugi. Untuk tujuan tersebut:

17.4.1 PERUSAHAAN dapat memulai proses atas namanya sendiri untuk melaksanakan seluruh kewajiban dan tanggung jawab dari KONTRAKTOR dan untuk mengajukan tuntutan yang dapat dimiliki oleh Penerima Ganti Rugi terhadap KONTRAKTOR; dan

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