







**IMO**  
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**A Legal Discussion on the Civil Liability for Oil  
Pollution Damage resulting from Offshore Oil Rigs in  
the light of the recent *Deepwater Horizon* incident**

**A Dissertation submitted in partial fulfillment of the requirements  
for the award of the Degree of Master of Laws (LL.M.) at the IMO  
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## LIST OF INTERNATIONAL INSTRUMENTS

- Convention on the Continental Shelf, Geneva, 1958, entry into force: 10 June 1964, 499 UNTS 311; 57 Ratifications;
- International Convention on Civil Liability for Oil Pollution Damage, Brussels, 1969, entry into force: 19 June 1975, 973 UNTS 3; 9 ILM 45; RMC I.7.30, II.7.30;
- International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, Brussels, 1971, entry into force: 16 October 1978, cessation of the Convention: 24 May 2002, replaced by the 1992 Fund, 1110 UNTS 57, RMC I.7.90, II.7.90;
- International Convention for the Prevention of Pollution from Ships, London, 1973, entry into force: not intended to enter into force without the 1978 Protocol, 1340 UNTS 184; 12 ILM 1319, as modified by the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 1973, London, 17 February 1978, entry into force: 2 October 1983, 1340 UNTS 61; 17 ILM 546;
- Convention on Limitation of Liability for Maritime Claims, London, 1976, entry into force: 1 December 1986, 1456 UNTS 221; 16 ILM 606; RMC I.2.330, II.2.330;
- Convention for the Protection of the Marine Environment and Coastal Region of the Mediterranean, Barcelona, 1976, entry into force: 12 February 1978, 1102 UNTS 27; 15 ILM 290, 22 Ratifications (as of 1 April 2011);
- Convention on Civil Liability for Oil Pollution Damage resulting from Exploration and Exploitation of Seabed Mineral Resources, London, 1976, 16 ILM 1450;
- CMI Draft Convention on Offshore Mobile Craft, Rio de Janeiro, 1977, CMI Handbook of Maritime Conventions, Document 12-1;
- The United Nations Convention on the Law of the Sea, Montego Bay, 1982, entry into force: 16 November 1994; 21 ILM 1245; 160 Ratifications (as of 1 April 2011);
- International Convention on Oil Pollution Preparedness, Response, and Cooperation, London, 1990, entry into force: 13 May 1995, 102 Ratifications (as of 1 April 2011);

- Protocol of 1992 to amend the International Convention on Civil Liability for Oil Pollution Damage of 29 November 1969, London, 27 November 1992, entry into force: 30 May 1996, 1956 UNTS 255, RMC I.7.51, II.7.51;
- Convention for the Protection of the Marine Environment of the North East Atlantic, Paris, 1992; entry into force: 25 March 1998, 16 Ratifications (as of 1 April 2011);
- Rio Declaration on Environment and Development, Rio de Janeiro, 1992;
- Protocol for the Protection of the Mediterranean Sea against Pollution resulting from Exploration and Exploitation of the Continental Shelf and the Seabed and its subsoil, Madrid, 1994, entry into force: 24 March 2011, 6 Ratifications (as of 1 April 2011);
- The Draft Convention on the Prevention of Transboundary Harm from Hazardous Activities, 2001; Text adopted by the ILC at its 53<sup>rd</sup> session, and submitted to the United Nations General Assembly as a part of the Commission's report covering the work of that session (A/56/10). The report, which also contains commentaries on the draft articles, appears in the *Yearbook of the International Law Commission, 2001*, vol. II, Part Two;
- Convention on Environmental Impact Assessment in a Transboundary Context, 2001, 1989 UNTS 309;
- Protocol on Strategic Environmental Assessment to the Convention on Environmental Impact Assessment in a Transboundary Context, 21 May 2003, Doc.ECE/MP .EIA/2003/2;
- International Convention on Civil Liability for Bunker Oil Pollution Damage, London, 2001, entry into force: 21 November 2008, IMO Doc: LEG/CONF. 12/19 of 27 March 2001; RMC I.7.130, II.7.130;
- Protocol of 2003 to the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1992, London, 16 May 2003, entry into force: 3 March 2005, IMO Doc: LEG/CONF. 14/20 of 27 May 2003; RMC I.7.115, II.7.115;

- Protocol to the 1988 Protocol for the Suppression of Unlawful Acts against the Safety of Fixed Platforms Located on the Continental Shelf, London, 2005, entry into force: 28 July 2010, IMO Doc: LEG/CONF.15/22 of 1 November 2005; 13 Ratifications (as of 1 April 2011).

## LIST OF ABBREVIATIONS

Barcelona Convention	Convention for the Protection of the Marine Environment and Coastal Region of the Mediterranean, 1976
Bunkers Convention	International Convention on Civil Liability for Bunker Oil Pollution Damage, 2001
1969 CLC	International Convention on Civil Liability for Oil Pollution Damage, 1969
1992 CLC	Protocol of 1992 to amend the International Convention on Civil Liability for Oil Pollution Damage, 1969
CLEE	Convention on Civil Liability for Oil Pollution Damage resulting from Exploration and Exploitation of Seabed Mineral Resources, 1976
Espoo Convention	Convention on Environmental Impact Assessment in a Transboundary Context, 2001
Fund Convention	International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1971
1992 Fund	Protocol of 1992 to amend the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1971
LLMC Convention	Convention on Limitation of Liability for Maritime Claims, 1976
LOSC	United Nations Convention on the Law of the Sea, 1982
MARPOL	International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978 thereto
Offshore Protocol	Protocol for the Protection of the Mediterranean Sea against Pollution resulting from Exploration and Exploitation of the Continental Shelf and the Seabed and its subsoil, 1994

OPRC Convention	International Convention on Oil Pollution Preparedness, Response, and Cooperation, 1990
OSPAR	Convention for the Protection of the Marine Environment of the North East Atlantic, 1992
Rio Declaration	Rio Declaration on Environment and Development, 1992
Rio Draft	CMI Draft Convention on Offshore Mobile Craft, 1977, as amended in 1994 at the CMI Sydney Conference.
2005 SUA Fixed Platforms Protocol	Protocol of 2005 to the Protocol of 1988 for the Suppression of Unlawful Acts against the Safety of Fixed Platforms Located on the Continental Shelf
AMSA	Australian Maritime Safety Authority
BP	BP P.l.c
CMI	Comité Maritime International
EEZ	Exclusive economic zone
ELD	Environmental Liability Directive
EU	European Union
FSUs	Floating Storage Units
FPSOs	Floating, Production, Storage and Offloading units.
IADC	International Association of Drilling Contractors
ICJ	International Court of Justice
ILC	International Law Commission
IMO	International Maritime Organisation
ISA	International Seabed Authority
MODUs	Mobile Offshore Drilling Units
NSOAF	North Sea Offshore Authorities Forum
OPA 90	USA Oil Pollution Act 1990
PPR	Prevention, preparedness and response

RIAA	United Nations, Reports of International Arbitral Awards
SDR	Special Drawing Right
Supplementary Fund Protocol	Protocol of 2003 to the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1992
UK	United Kingdom
UN/DOALOS	United National Office of Legal Affairs/ Division for Ocean Affairs and the Law of the Sea
UNEP	United Nations Environment Programme
USA	United States of America

## INTRODUCTION

The purpose of this dissertation is to examine, from a legal point of view, the consequences of the *Deepwater Horizon* incident, a drilling platform which exploded on the 20 April 2010 in the Gulf of Mexico. This incident triggered a number of reactions on the international plane, at EU level, and also at national level especially within the USA which was directly effected by such incident. Firstly, however this dissertation lays down in the first chapter some introductory information about the offshore industry, including an insight on the legal status of offshore installations and the environmental risks imposed on the marine environment from the operation of such installations. Moreover, Annex I and II to this dissertation give statistical information on the amount of oil rigs currently operating in the various regions of the ocean, and a brief summary of the major oil rig incidents which took place over the past years. It is to point out that transboundary pollution is of significant importance especially in the case of oil spills emanating from offshore operations, which could pose a serious environmental threat to both the coastal State in whose waters the installation is operating, but also to its neighbouring States. For this purpose, Chapter 2 of this work, will focus on the concept of transboundary pollution.

Furthermore, this dissertation will lay down in detail the facts, the environmental concerns, and the USA legislative initiatives following the *Deepwater Horizon* incident in Chapter 3. One must also keep in mind, that in addition to these environmental risks, and the deleterious effects of such incidents, the main problem revolves around the fact that presently there is no international instrument which regulates offshore exploration and exploitation activities, and the question remains whether the instruments regulating ships and vessels could equally apply to offshore installations. A more important question raised, is who is liable and who is to pay compensation to the victims affected by such offshore incidents. Chapter 4 will analyse in some detail the Indonesian proposal submitted during the 97<sup>th</sup> session of the IMO Legal Committee, which specifically drew the attention of the IMO, that in view of the recent offshore incidents, there is a compelling need to enact an international instrument addressing liability and compensation for oil pollution damage resulting from offshore oil exploration and exploitation. To follow, is IMO's reaction to the said proposal and the reactions of the various State delegations. An analysis of the proposals at EU Level will also be laid out, and this is done in view of the fact that Malta is an EU member State and can be directly effected by any decisions taken both on an International and EU level. The final chapter will delve into the various existing civil liability and compensation regimes, and their possible

application to offshore exploration and exploitation activities. A number of recommendations and opinions will be provided in order to conclude this work.

The research for this dissertation was carried out at the IMO International Maritime Law Institute library and at the 97<sup>th</sup> session of the IMO Legal Committee. Links to online material used during this research were last verified on 1 April 2011.

The law as stated in this work is based on materials available to me as at 1 April 2011.

# CHAPTER 1

## NATURE OF OFFSHORE OIL RIGS AND POSSIBLE RISKS TO THE ENVIRONMENT

### 1.1 The historical development of the Offshore Industry:

Covering 72 per cent of the earth's total surface area and with a total volume of 140 million square kilometers, the oceans represent a vast resource for the sustenance of humankind. The sea is a channel of trade and commerce, a source of hydrocarbons from where we get the most coveted source of energy - oil. The effort to reap the riches of the sea entered a new phase when people realized what an abundance of minerals was hidden under and in the water.<sup>1</sup> The history of the offshore oil industry goes back to the 1890's when it began off the coast of California. As early as 1909 and 1910, wells were being drilled in Ferry Lake in Caddo Parish, Louisiana.<sup>2</sup>

After the end of the Second World War drilling technologies and techniques had progressed to the point where drilling offshore, beyond the shallow coastal waters, became feasible.<sup>3</sup> By 1947 oil was produced commercially from platforms out of sight of the land.<sup>4</sup> This meant that in a technical sense offshore petroleum operations were ready to move beyond the limits of the territorial sea and coastal State jurisdiction.<sup>5</sup> At that moment the breadth of the territorial sea and hence the seaward extend of the territorial sovereignty of the coastal State was not internationally agreed. Maritime nations, amongst them the USA, adhered to a three-mile limit.

However, on 28 September 1945, American President Truman issued a proclamation in relation to the natural resources of the subsoil and seabed of the continental shelf, wherein he stated that '*... Having concern for the urgency of conserving and prudently utilizing its natural resources, the Government of the United States regards the natural resources of the subsoil and sea bed of the continental shelf beneath the high seas but contiguous to the coasts*

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<sup>1</sup> Gavouneli, Maria; Pollution from Offshore Installations, Graham & Trotman/Martinus Nijhoff, London, 1995, p. 1.

<sup>2</sup> Esmaili, Hossein; The Legal Regime of Offshore Oil Rigs in International Law, Ashgate Dartmouth, Aldershot, 2001, p. 11.

<sup>3</sup> Taverne, Bernard; Petroleum, Industry and Governments: A study of the Involvement of Industry and Governments in the Production and Use of Petroleum, Second Edition, Kluwer Law International B.V., The Netherlands, 2008, p. 305.

<sup>4</sup> Gavouneli, Maria; *op. cit.*, p. 2.

<sup>5</sup> Taverne, Bernard; *op. cit.*, p. 305.

*of the United States as appertaining to the United States, subject to its jurisdiction and control.*<sup>6</sup> The Prolongation argument was that the continental shelf should be regarded as an extension of the land mass of the coastal State and thus naturally appurtenant to it.<sup>7</sup> The Truman Proclamation further provided that the character as high seas of the waters above the continental shelf and the right to their free and unimpeded navigation are in no way affected.<sup>8</sup> The prolongation argument was later confirmed by the ICJ, in its judgment on the *North Sea Continental Shelf* cases,<sup>9</sup> wherein the Court held that the rights of the coastal State in respect of the area of the continental shelf constituting a natural prolongation of its land territory under the sea existed *ipso facto* and *ab initio*, by virtue of its sovereignty over the land.<sup>10</sup>

The Truman Proclamation triggered off a series of similar unilateral statements, and legislative actions of other coastal States, in particular in Latin America and the Middle East Gulf area. This proved to be a turning point in both the development of international law and the world economy.<sup>11</sup>

Around 1950 the British Petroleum Company was engaged in exploration operations off the coast of Abu Dhabi in the Persian Gulf. In the UK the first offshore well was drilled in 1964. During the oil crisis in 1973 -1974 several thousand fixed still jacked offshore oil rigs were in service in places like Alaska, Australia, Brazil, Indonesia, New Zealand, The Persian Gulf and Zaire.<sup>12</sup> At the end of 1997 in the UK, 186 offshore oil and gas fields were in production. In Australia nearly 90 per cent of the petroleum wealth is found offshore and up to 100 offshore wells per year are drilled in Australian offshore areas.<sup>13</sup>

Today the rate of offshore oil production and the use of offshore oil rigs is significantly increasing. Offshore oil installations are also presently working in the Mediterranean region namely in Libya, Egypt, Italy and Croatia. Current and recent statistical data of offshore installations can be read in Annex I to this dissertation.

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<sup>6</sup> US Presidential Proclamation No 2667, Policy of the United States with Respect to the Natural Resources of the Subsoil and Sea Bed of the Continental Shelf, done at Washington on 28 September 1945.

<sup>7</sup> Taverne, Bernard; *op. cit.*, p. 307.

<sup>8</sup> *Ibid.*, p. 306.

<sup>9</sup> North Sea Continental Shelf, Judgment, I.C.J. Reports 1969, p. 3.

<sup>10</sup> *Ibid.*, at p. 23.

<sup>11</sup> Taverne, Bernard; *op. cit.*, p. 308.

<sup>12</sup> Esmacili, Hossein; *op. cit.*, p. 12.

<sup>13</sup> *Ibid.*

## 1.2 Definition and Types of Offshore Oil Rigs:

The great variety and the various uses of offshore installations makes it difficult to define them. This becomes even more difficult with the today's rapid development of modern technology. In physical terms offshore installations can be roughly divided into two groups: 'Artificial Islands'<sup>14</sup> and 'Installations'.<sup>15</sup>

The term installation refers to constructions resting upon the seafloor and fixed by means of piles or tubes driven into the seafloor, and/or to concrete structures which become fixed there by their own weight.<sup>16</sup> These structures therefore cannot partake of the 'nature of territory' and are not deemed to possess the same degree of permanence as artificial islands.<sup>17</sup>

Both artificial islands and installations, however fall under the definition of an artificial structure as being: *'Any man-made construction which is fixed to the bottom of the sea or floats permanently at a given spot for the duration of the activity for which it was designed.'*<sup>18</sup>

Most oil fields today incorporate both mobile and permanent features accentuating the difficulties of definition. It is interesting to note the definition given to 'Offshore Mobile Craft' in the CMI Rio Draft, in Article 1: *'Craft shall mean any marine structure of whatever nature not permanently fixed into the seabed which a) is capable of moving or being moved whilst floating in or on water, whether or not attached to the seabed during operations, and b) is used or intended for use in the exploration, exploitation processing, transport or storage of the mineral resources of the seabed or its subsoil or in ancillary activities.'*

The LOSC seems to make no difference as to the application of the international legal regime to artificial islands and installations. Both kind of constructions are equally subject to the same international laws and regulations provided by the LOSC with respect to the different belts of waters within national jurisdiction or beyond the limits of such jurisdiction. Indeed, in

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<sup>14</sup> The term 'Artificial Islands' refers to constructions created by man's dumping of natural substances like sand, rocks, and gravel on the seabed.

<sup>15</sup> Gavouneli, Maria; *op. cit.*, pp. 9-10.

<sup>16</sup> Honein, Salah E.; *The International Law relating to Offshore Installations and Artificial Islands*, Lloyd's of London Press Ltd, London, 1991, p. 1.

<sup>17</sup> Gavouneli, Maria; *op. cit.*, p. 10.

<sup>18</sup> *Ibid.*

several instances the LOSC uses simultaneously both terms of artificial islands and installations when referring to constructions on the seas and seabed.<sup>19</sup>

There are almost as many different types of oil rigs as there are ships. These rigs are often called MODUs and range from structures driven directly into the seabed to actual sea-going vessels, known as drill ships. Within each classification, the craft may be treated differently according to its operational mode. As a result, the legal regime may vary depending on the stage of operations.<sup>20</sup>

The oil and gas industry involves a large and diverse number of ocean structures. From fixed platforms to laying pipelines to iceberg protection systems, the scope of offshore operations includes an enormous amount of resources applied to the marine sector in a unique manner.<sup>21</sup> Moreover these structures tend to be highly sophisticated and complex, requiring considerable expertise for their operation. The actual offshore exploration process begins with seismic research vessels sounding the ocean floor and its geological formations beneath with energy waves. From the information retrieved from the seismic research the experts will decide whether or not to begin exploratory drilling. At this stage there are a number of options available depending on the depth of the water and seabed conditions.<sup>22</sup>

In summary, offshore oil rigs may be classified into mobile units<sup>23</sup> and fixed platforms<sup>24</sup>. Mobile platforms are generally classified as floating and bottom supported. Floating rigs include drill ships, semi-submersibles and barges. Bottom supported rigs include submersibles and jack-up drills.

Fixed platforms, on the other hand, are similar to onshore oil rigs though they possess more elaborate features. Any assimilation of rules from the shipping industry must take these differences in consideration.<sup>25</sup>

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<sup>19</sup> Honein, Salah E.; *op. cit.*, p. 2.

<sup>20</sup> De La Rue, Colin; *Liability for Damage to the Marine Environment*, Lloyd's of London Press, London, 1993, p. 207.

<sup>21</sup> *Ibid.*, p. 208.

<sup>22</sup> *Ibid.*, pp. 208-209.

<sup>23</sup> Esmaceli, Hossein; *op. cit.*, p. 12.

<sup>24</sup> *Ibid.*, p. 16.

<sup>25</sup> See *Infra*, Chapter 5.

Categorizing offshore oil rigs as ships, or including them in a separate category of their own may have different legal consequences in each particular situation. For instance if oil rigs are considered as ships in international law, then they are entitled to the rights of innocent passage, they have to fly under a flag and the flag States have jurisdiction over the oil rigs and people on board. Moreover a number of regulations and provisions of many international conventions in relation to ships, such as the ones dealing with marine pollution, arrest of ships, collision and salvage will be applicable to oil rigs as well.<sup>26</sup>

The actual practice of States in certain situations such as registry and innocent passage indicates that mobile oil rigs are treated like ships for legal purposes. There remains some doubt, concerning their qualification as a ship when they are engaged only in drilling activities. Fixed oil rigs however appear not to qualify for the juridical status of a ship in both domestic and international law.<sup>27</sup>

The current legal status of offshore operations tends to be national and not international in nature. This can be traced back to 1958 when the Geneva Convention on the Continental Shelf was concluded.<sup>28</sup> This Convention provided its State Parties with sovereign rights for exploring and exploiting the natural resources of their continental shelves. The only impediment to coastal State rights, at the time, was found in Article 3 of the same Convention stating that: *'The rights of the coastal State over the continental shelf do not affect the legal status of the superjacent waters as high seas, or that of the airspace above those waters.'*

In effect coastal States were given control over the offshore industry as long as this did not conflict with the traditional uses of the sea. Subsequent conferences on the law of the sea remained committed to the principle that offshore oil exploration and exploitation was within the complete jurisdiction of the coastal State.<sup>29</sup> The LOSC has reinforced coastal State control over offshore activity. Article 81 of the LOSC provides that *'The coastal State shall have the exclusive right to authorize and regulate drilling on the continental shelf for all purposes'*. Whilst this reflects the current legal status of offshore operations, it demonstrates a trend in the law away from any sort of international management of the offshore oil industry. Instead

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<sup>26</sup> Esmaceli, Hossein; *op. cit.*, p. 20.

<sup>27</sup> *Ibid.*, p. 41.

<sup>28</sup> De La Rue, Colin; *op. cit.*, p. 213.

<sup>29</sup> *Ibid.*, pp. 213-214.

coastal State jurisdiction has left behind it a patchwork of national laws addressing offshore development.<sup>30</sup>

In the light of the foregoing, if an attempt is to be made to reduce, if not eliminate, future offshore tragedies, as well as common environmental disasters, then some form of international co-operation must begin to develop at least a set of minimum standards in the industry. Indeed over the years a considerable number of incidents involving offshore installations has occurred, with the more recent one being the *Deepwater Horizon*, in the Gulf of Mexico. Annex II to this dissertation provides an insight into some of the major incidents which have occurred over the years, involving offshore oil rigs.

Moreover it is necessary for both international treaties and national legislations to clearly define ‘ships’, ‘artificial islands’ and ‘offshore installations’. This will facilitate the resolutions of serious legal issues arising from the growing use of offshore oil rigs.

The following section examines the types of pollutants resulting from offshore activities which would allow us to determine the existing marine environmental risks and threats posed by the offshore industry.

### **1.3 Kinds of Pollutants from Offshore Activities:**

Hydrocarbons are naturally the main pollutants emanating from offshore installations. All kinds of chemicals, however, are also used both in the drilling process and as part of the standard maintenance procedure on the platforms against the corrosive marine environment.<sup>31</sup> Drilling cuts brought to the surface from great depths are often radioactive. Most of the sewage and garbage originating from offshore installations include high concentrations of suspended solids.<sup>32</sup>

Marine pollutants can be distinguished into categories: degradable and non-degradable.<sup>33</sup> The first group contains substances released into the marine environment as domestic sewage and effluents from pulp or paper mills or food processing plants. These can be broken down

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<sup>30</sup> Ibid., p. 214.

<sup>31</sup> Gavouneli, Maria; *op.cit.*, p. 35.

<sup>32</sup> Ibid.

<sup>33</sup> Ibid.

naturally and do not represent serious environmental threat if they are discharged in reasonable quantities. The second category includes heavy metals, pesticides and other highly toxic chemicals. They cannot be broken down and their persistent presence in the marine environment expands occasionally into several generations of animal or plant life.<sup>34</sup>

In the offshore industry intentional pollution is not very common because any loss of oil and gas goes against the commercial scope of the operator but there is still plenty of room for accidental pollution,<sup>35</sup> which may result from blowouts, rupture of a pipeline; a collision between a ship and an installation; an accident while a tanker is being loaded from an installation; or destruction of a suspended well-head or sub-sea completion system.<sup>36</sup> A blowout consists of a sudden and uncontrolled release from a well of large amounts of high-pressure gas or oil. It may cause an explosion, fire, loss of life and equipment, and massive pollution.<sup>37</sup>

Operational pollution, also known as deliberate pollution, is an increasing problem within the offshore industry. It may arise from the oil contained in drilling muds and cuttings, production water and displacement water (i.e. water displaced from containers used for storing oil), chemicals used in drilling, oil from drainage systems on platforms, the disposal of sewage, garbage, and other wastes from installations<sup>38</sup> and chemical biocides used as coating substances to discourage sedentary marine species from attaching themselves to the platforms.<sup>39</sup>

Drilling operations are also responsible for 98-99 per cent of the material other than oil discharged into the sea. The vast majority of these include garbage and sewage produced by the inhabitants of offshore installations.<sup>40</sup>

Additionally, due to the fact that offshore installations are usually located near coastal areas the possibility of harm inflicted upon the marine life and public amenities increases

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<sup>34</sup> Ibid.

<sup>35</sup> Ibid., p. 40.

<sup>36</sup> Churchill R.R. & Lowe A.V.; *The law of the Sea*, 3<sup>rd</sup> Edition, Juris Publishing, Manchester, United Kingdom, 1999, p. 371.

<sup>37</sup> De La Rue, Colin; *op. cit.*, p. 218.

<sup>38</sup> Churchill R.R. & Lowe A.V.; *op.cit.*, p. 371.

<sup>39</sup> Gavouneli, Maria; *op. cit.*, p. 40.

<sup>40</sup> Ibid., p. 41.

disproportionately.<sup>41</sup> Not only there is the risk of polluting the marine environment and amenities of the coastal State, in whose waters the installation is operating, but there is another environmental risk which is that of polluting the neighbouring States. This is one of the major environmental risks of the offshore industry, especially in cases of major oil spills and which would be delved into more detail in the next chapter.

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<sup>41</sup> Ibid.

## CHAPTER 2

### TRANSBOUNDARY POLLUTION FROM OFFSHORE ACTIVITIES

#### 2.1 General introduction to the concept of transboundary pollution:

It is prudent to stress that despite the division of the sea into regions, the various segments possess physical and geomorphologic unity. The oceans do not exist mutually exclusive of each other. The sea is one big collection of water with the exception of the so-called closed seas. The divisions are imaginary and they find their explanation in convenience. Pollution in one area will seep into the other regardless of our imaginary boundaries.<sup>42</sup>

International law does not allow States to conduct or permit activities within their territories, or in common spaces without regard for the rights of other States for the protection of the environment. This principle is expressed through the maxim '*sic utere tuo, ut alienum non laedas*' or '*principle of good neighbourliness*'.<sup>43</sup>

The principle of good neighbourliness finds its origin in the *Trail Smelter*<sup>44</sup> arbitration, between the USA and Canada. The Tribunal was asked to determine the measure of Canada's duty to compensate for past injury inflicted upon property in the State of Washington by sulphuric and other noxious fumes drifting over the frontier from a smelter in British Columbia, as well as the character of any obligation to prevent any such injury in the future.<sup>45</sup> The Tribunal concluded that "*no State has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another*"<sup>46</sup>, and that measures of control were necessary.

The judgment of the ICJ in the *Corfu Channel*<sup>47</sup> case supports a similar conclusion. Although the case involved damage by mines to ships, exercising a right of transit through a strait on

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<sup>42</sup> Agyebeng, Kissi, "Disappearing Acts – Toward a Global Civil Liability Regime for Pollution Damage Resulting from Offshore Oil and Gas Exploration" (2006). *Cornell Law School Graduate Student Papers*. Paper 11. [http://scholarship.law.cornell.edu/lps\\_papers/11](http://scholarship.law.cornell.edu/lps_papers/11)

<sup>43</sup> Birnie P.W. & Boyle A.E.; *International Law and the Environment*, 2<sup>nd</sup> Edition, Oxford University Press, New York, 2002, p. 104.

<sup>44</sup> Award II, 1941; RIAA iii. 1905.

<sup>45</sup> Gavouneli, Maria; *op. cit.*, p. 77.

<sup>46</sup> Award II, 1941; RIAA iii. 1905 at 1965.

<sup>47</sup> *Corfu Channel case*, Judgment of April 9<sup>th</sup>, 1949: I.C.J. Reports 1949, p. 4.

the territory of the State responsible and it did not concern pollution as such, the Court referred expressly to: “...every State’s obligation not to allow knowingly its territory to be used for acts contrary to the rights of other States.”<sup>48</sup> Here the ICJ held Albania responsible for damage to British warships caused by a failure to warn them of mines in territorial waters.<sup>49</sup> This judgment however does not indicate what the environmental rights of other States might be and moreover the decision refers directly to known dangers and thus becomes authoritative only for a more restricted customary obligation to give warning of known environmental hazards.<sup>50</sup>

Nevertheless, however doubtful its origin, the principle of good neighbourliness is by now an established part of customary international law.<sup>51</sup>

## **2.2 The Rio Declaration:**

Two propositions enjoy significant support in State practice, judicial decisions, the pronouncements of international organizations, and the work of the ILC and can be regarded as customary international law, or in certain aspects as general principles of law. These two propositions consist in the duty of States to prevent, reduce, and control pollution and environmental harm and the duty to co-operate in mitigating environmental risks and emergencies. The codification and development of these elements in relation to transboundary harm has advanced significantly since the Rio Declaration, in the work of the ILC and in the jurisprudence of the ICJ.<sup>52</sup>

In the Rio Declaration three main principles apply specifically to transboundary harm and environmental risks. Principle 2 requires States to prevent harm to the environment of other States or of common spaces, Principle 18 requires them to notify emergencies likely to affect the environment of other States and Principle 19 requires prior notification and consultation in good faith before undertaking activities that may have significant adverse transboundary environmental effects.

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<sup>48</sup> Ibid., at p. 22.

<sup>49</sup> Birnie P.W. & Boyle A.E.; *op. cit.*, p. 109.

<sup>50</sup> Gavouneli, Maria; *op. cit.*, p. 78.

<sup>51</sup> Ibid.

<sup>52</sup> Birnie P.W. & Boyle A.E.; *op. cit.*, pp. 104-105.

In 1996 the ILC came up with a set of twenty-two draft articles on the topic entitled 'Liability for Injurious Consequences of Acts not Prohibited by International Law'.<sup>53</sup> There were three main elements in these draft articles – prevention, co-operation, and strict liability for damage. In 1997 the ILC decided to divide the topic into two parts and deal separately with prevention of harm and liability for harm. Following this in 2001 a draft Convention on the Prevention of Transboundary Harm from Hazardous Activities was adopted and recommended to the UN General Assembly.<sup>54</sup>

### **2.3 The 2001 Draft Convention on the Prevention of Transboundary Harm from Hazardous Activities:**

Apart from the removal of those elements which dealt with liability for actual damage, the Draft Convention differs only in detail from the 1996 draft articles. The Draft Convention codifies existing international obligations of environmental impact assessment, notification, consultation, monitoring, harm prevention, and diligent control of activities likely to cause transboundary harm to other States.<sup>55</sup> The articles are based on existing precedents such as the Rio Declaration, and the LOSC on the protection of international watercourses. The ILC has demonstrated that the law relating to the prevention of transboundary harm is ripe for codification according to its criteria. The Draft Convention also reflects the principles set out in the Rio Declaration, but formulates them in greater detail. All appropriate measures must be taken to prevent or minimize the risk of transboundary harm or to minimize its effects, States must co-operate to this end, no such activity may be undertaken without prior impact assessment and authorization by the State in which it is to be conducted, States likely to be affected must be notified and consulted with a view to agreeing measures to minimize or prevent the risk of harm.<sup>56</sup>

A novel and possibly controversial feature of the Draft Convention is that the States concerned must negotiate an equitable balance of interests in accordance with a range of factors listed in the draft.<sup>57</sup>

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<sup>53</sup> Ibid., p. 105.

<sup>54</sup> Ibid.

<sup>55</sup> Ibid.

<sup>56</sup> Ibid., p. 107.

<sup>57</sup> Ibid.

Regarding the Rio Declaration, one must note that it lays down generic provisions without specific reference to transboundary oil pollution damage arising from offshore activities. Similarly the scope of the Draft Convention gives the possibility for a wide interpretation so as to also include offshore activities however the terms and approach used is very generic. Article 1 of the Draft Convention states that its articles apply to activities not prohibited by international law which involve a risk of causing significant transboundary harm through their physical consequences. Certainly offshore activities do not fall within prohibited activities under international law, and thus one could assume that the Draft Convention applies to offshore activities and transboundary harm deriving therefrom.

#### **2.4 The Espoo Convention and the Kiev Protocol of 2003:**

Another instrument in relation to transboundary impact is the Espoo Convention of 2001 and the Kiev Protocol of 2003 thereto.<sup>58</sup> The Espoo Convention requires its State Parties to ‘*take all appropriate and effective measures to prevent, reduce, and control significant adverse transboundary environmental impact from proposed activities*’.<sup>59</sup> The Espoo Convention requires that transboundary environmental impact assessments are carried where significant adverse impacts are likely to result from a proposed activity.<sup>60</sup> Appendix I of the Espoo Convention lists offshore hydrocarbon production as one of the activities with potential to cause significant adverse impacts.<sup>61</sup> Indeed an oil spill from an oilrig affecting more than one country would constitute a ‘transboundary impact’ with a significant ‘impact’ on the environment. The Kiev Protocol on Strategic Environmental Assessment of 2003 is intended to support the Espoo Convention by ensuring that individual parties integrate environmental assessment into their more general plans and programmes at an early stage and thereby help to lay the groundwork for sustainable development.<sup>62</sup>

The effects and concerns of transboundary pollution were also much discussed in the light of the recent *Deepwater Horizon* incident. Transboundary pollution also played an important role in the subsequent discussions which took place. The following chapter will in fact, delve into the facts of the *Deepwater Horizon* and its aftermath.

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<sup>58</sup> Luk, Sandy; ‘Legal Background Paper: Environmental Regulation of Oil Rigs in EU Waters and Potential Accidents’, 22<sup>nd</sup> June 2010, p. 6. Online available at: <http://www.clientearth.org/briefing-environmental-regulation-of-oil-rigs-in-eu-waters-and-potential-accidents>

<sup>59</sup> Article 2 (1) of the Espoo Convention.

<sup>60</sup> Luk, Sandy; *op. cit.*, p. 6.

<sup>61</sup> *Ibid.*

<sup>62</sup> *Ibid.*, p. 7.

## CHAPTER 3

### THE *DEEPWATER HORIZON* INCIDENT AND ITS AFTERMATH

#### 3.1 The facts:

In the evening of 20 April 2010 an explosion occurred on the *Deepwater Horizon* semi-submersible drilling platform located in the Gulf of Mexico. That explosion and the subsequent fire aboard the rig, resulted in the death of 11 people<sup>63</sup> and 17 others injured.<sup>64</sup> The rig was fully evacuated following the blast, and though attempts were made to contain the fire, the platform sank<sup>65</sup> 50 nautical miles off the coast of Louisiana<sup>66</sup> in the Gulf of Mexico two days later.

*Deepwater Horizon* was owned by Transocean, an offshore drilling company, and leased to BP, one of the world's largest oil companies.<sup>67</sup> At the time of the explosion, BP and Transocean were in the process of closing the well (also known as the *Macondo 252* well) in anticipation of later production, and USA construction company Halliburton had recently completed cementing of casings in the well. The causes of the crisis at *Deepwater Horizon* on 20 April 2010, the subsequent clean-up operation and attempt to stem the flow of hydrocarbons from the *Macondo* well on the ocean floor, and who is ultimately responsible for the disaster, have been the subject of considerable contention around the globe. Internal investigations by BP, Transocean and Halliburton are ongoing.<sup>68</sup> In the USA two official investigations into the *Deepwater Horizon* remain ongoing, the House of Representatives has conducted at least 33 hearings in ten committees, the Senate 30 hearings in eight committees.<sup>69</sup>

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<sup>63</sup> Tobin, James; 'The implications of the *Deepwater Horizon* oil spill in the Gulf of Mexico', Library Note for the House of Lords, UK, 13 December 2010, p. 5.

<sup>64</sup> 'A Black Day, Semi explodes, sinks, 11 crewmen missing, major oil spill in the Gulf of Mexico', *Marine Log* 2010, 115 (5), p. 5.

<sup>65</sup> Tobin, James; *op. cit.*, p. 5.

<sup>66</sup> 'Fears on the Horizon', *Fairplay* 2010, 369 (6582) p. 4.

<sup>67</sup> Tobin, James; *op. cit.*, p. 5.

<sup>68</sup> *Ibid.*

<sup>69</sup> *Ibid.*

A mile beneath the surface of the water, oil was gushing from the *Macondo* well, the deepest that any oil well blowout had occurred before. Estimates differ on how much oil issued from the well in the 87 days which it took to seal the well. However, according to the USA National Incident Command's Flow Rate Technical Group the estimate as at 2 August 2010, was approximately 4.9 million barrels of oil before the well was contained on 15 July 2010.<sup>70</sup>

BP's first attempt to cap the well on 8 May 2010 with a newly fabricated containment chamber failed, leaving oil to continue gushing out at an estimated rate of 5,000 barrels per day.<sup>71</sup> At that rate it was feared that it will surpass the previous largest oil spill namely the 1989 *Exxon Valdez* disaster<sup>72</sup> which released 11 million gallons of oil into the ocean.<sup>73</sup>

### **3.2 Environmental damage and environmental concerns:**

In May 2010 it was reported that in the short term the mass of swirling oil lurking in the Gulf Coast could turn into a calamity not just for BP but also for the maritime industry. Ports along the gulf set up cleaning stations to avoid contaminating harbours with oil brought in on the hulls of ships navigating through the oil slick.<sup>74</sup>

As many as 2,000 personnel and 75 skimmer vessels were being used in the oil spill response. On 28 April, 2010 responders tried a controlled burn, which is a strategy designed to minimize environmental risks by removing large quantities of oil in the Gulf of Mexico. Controlled, on location burning, is one of the several techniques, which could be used to minimize the consequences of an oil spill. BP and Transocean were mobilizing the semi-submersible rig *Transocean Development Driller III* to drill a relief well intended to secure the existing well. Work was also being carried out to produce a sub-sea collection system capable of operating in deepwater to funnel leaking oil to the surface for treatment.<sup>75</sup> Indeed on 15 July 2010, a temporary cap had sealed the flow while a relief well was dug.<sup>76</sup>

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<sup>70</sup> Ibid.

<sup>71</sup> 'Fears on the Horizon', *Fairplay* 2010, 369 (6582) p. 4.

<sup>72</sup> Ibid.

<sup>73</sup> Tobin, James; *op. cit.*, p. 5.

<sup>74</sup> 'Fears on the Horizon', *Fairplay* 2010, 369 (6582), pp. 4-5.

<sup>75</sup> 'A Black Day, Semi explodes, sinks, 11 crewmen missing, major oil spill in the Gulf of Mexico', *Marine Log* 2010, 115(5), pp. 5-6.

<sup>76</sup> 'BP Finally seals leaking Gulf of Mexico oil well'. Online, available at: <http://www.bbc.co.uk/news/11365122>

The state of Louisiana has suffered negative economic and ecological impacts from the BP oil spill, namely in its commercial fishing business and industry. The wetlands are also suffering incalculable permanent damages.<sup>77</sup> All sorts of species were affected, including all filter-feeder organisms, corals, sea fans and more importantly the pelicans and other birds which are being continuously aided.<sup>78</sup>

Out of the fund which was set up in August 2010, BP paid about \$3.3 billion to 168,000 victims. It was also held in the report by the National Commission on the Deepwater Horizon spill and Offshore Drilling, that ‘bad management’ led to the BP disaster.<sup>79</sup> Moreover the fund Attorney held that the Gulf of Mexico would have largely recovered from the BP oil spill by the end of 2012.<sup>80</sup> On the other hand the marine environment experts claim that the Gulf of Mexico will not recover fully by the end of 2012.<sup>81</sup>

### **3.3 The USA Legislative Initiatives:**

The question was and remains for the USA, whether an incident of that size, despite involving the failure of an oil rig and not an ocean vessel, will lead to an overhaul of the OPA 90 which was the result of the *Exxon Valdez* disaster. Both the House of Representatives and the Senate of the USA introduced legislation amending the OPA 90 to require oil polluters to pay the full cost of oil spills raising liability caps from 75 million USA Dollars to 10 billion USA Dollars.<sup>82</sup>

One must point out however the significant differences between the disaster of the *Exxon Valdez* and the *Deepwater Horizon* catastrophe.<sup>83</sup> One was a grounding caused by failings in basic vessel operating procedures, the other clearly wasn’t. One involved shipping in all its

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<sup>77</sup> ‘Moratorium Shuts Down Deepwater’, *Marine Log* 2010, 115 (6), p. 15.

<sup>78</sup> ‘Pelicans suffer in the Gulf of Mexico oil crisis’. Online, available at: <http://www.bbc.co.uk/news/world-us-canada-10720210>

<sup>79</sup> See Chapter 4 of the Report. Available online at: <http://www.oilspillcommission.gov>

<sup>80</sup> Gulf of Mexico ‘to recover from BP spill by end 2012’. Online, available at: <http://www.bbc.co.uk/news/world-europe-12352051>

<sup>81</sup> Gulf spill’s effects ‘may not be seen for a decade’. Online, available at: <http://www.bbc.co.uk/news/science-environment-12520630>

<sup>82</sup> ‘Fears on the Horizon’, *Fairplay* 2010, 369 (6582), p. 4.

<sup>83</sup> ‘Looking beyond the Horizon’, *Fairplay* 2010, 369 (6582) p. 3.

vulnerability the other didn't. One was caused by human error on a single-skin tanker in a pristine environment whilst the sequence of events that led to the *Deepwater Horizon* incident are yet to be determined.<sup>84</sup> Just as the *Exxon Valdez* accident led to the enactment of the OPA 90 and a stronger regulatory regime that transformed the tanker industry, so, too will the *Deepwater Horizon* disaster change the way the offshore drilling industry does business.<sup>85</sup>

Various members of the Senate expressed their opinions following the *Deepwater Horizon* incident. Most of them agreed to a pause<sup>86</sup> on offshore drilling until the investigations<sup>87</sup> on the cause of the *Deepwater Horizon* incident are concluded.

The *Deepwater Horizon* incident has also raised concerns for other oil companies who have joined forces to build an oil capture and containment system clearly suggesting that none of them have such a system in place in the event of an underwater blowout.<sup>88</sup>

*Deepwater Horizon* unleashed a frenzy of legislative proposals, however these were reduced to two main packages, informally known as the '*drill and spill*' bills.<sup>89</sup>

In the House of Representatives the vehicle was HR 3534, the Consolidated Land, Energy, and Aquatic Resources Act. In the Senate it was S 2662 the Clean Energy Jobs and Oil Company Accountability.<sup>90</sup>

As at August 2010, H 3534 was only approved by the House of Representatives, and to become law it still needed the approval of the Senate as drafted. More likely the Senate would pursue the passage of S 2662 and that the Senate and House of Representatives versions would be reconciled into a combined bill.<sup>91</sup>

HR 3534 is the less dangerous for the shipping industry. It repeals the OPA 90, \$75 million liability cap for offshore facilities, which would on the other hand probably constrain future

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<sup>84</sup> Ibid.

<sup>85</sup> 'Moratorium Shuts Down Deepwater', *Marine Log* 2010, 115 (6) p. 13.

<sup>86</sup> 'Moratorium threat adds to pain', *Marine Log* 2010, 115 (7), p. G1.

<sup>87</sup> 'Spill fallout: Senator calls for offshore drilling freeze', *Marine Log* 2010, 115 (5), p. 14.

<sup>88</sup> 'Big Oil's real concern', *Fairplay* 2010, 369 (6596), p. 3.

<sup>89</sup> 'Drill and Spill bill threat looms', *Fairplay* 2010, 369 (6596), p. 24.

<sup>90</sup> Ibid.

<sup>91</sup> Ibid.

USA crude production.<sup>92</sup> On the negative side for the shipping industry this law gives the president seemingly unlimited regulatory power to review and increase the OPA 90 liability cap for vessels in the future.<sup>93</sup> S 2662 then includes multiple provisions which could drastically heighten legal risks in USA waters. For example, it proposes tripling caps under the Limitation of Shipowners' Liability Act. S 2662 also proposes unlimited liability for offshore facilities. Following these USA legislative proposals, shipping groups warn of a '*potentially severe*' impact on maritime commerce.<sup>94</sup>

One is to note that the Deepwater Horizon incident, did not only trigger a concern within the USA, but discussions on the matter were also held within some international organizations resulting in various other legislative proposals. The following chapter of this dissertation will analyse in detail the concerns expressed by the international community at the IMO Legal Committee, and the discussions held within the EU.

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<sup>92</sup> Ibid.

<sup>93</sup> Ibid., p. 25.

<sup>94</sup> Ibid.

## CHAPTER 4

### RECENT ATTEMPTS OF INTERNATIONAL ORGANISATIONS TO REGULATE THE OFFSHORE INDUSTRY:

#### 4.1 The Indonesian proposal to the IMO:

At the 97<sup>th</sup> session of the IMO Legal Committee, Indonesia put before the said Committee a proposal<sup>95</sup> to add a new work programme item to address liability and compensation for oil pollution damage resulting from offshore oil exploration and exploitation.

The said proposal was triggered by the occurrence of an incident on the *Montara* offshore oil platform located in the Australian EEZ. On 21 August 2009 the *Montara* offshore oil platform blew out during the drilling of a new well on the platform. The platform was immediately evacuated due to the uncontrolled release of gaseous hydrocarbons and oil.<sup>96</sup>

By 30 August 2009, the AMSA reported that oil slicks had spread over 1,750 square miles of ocean, in an area having an abundance of coral reefs, marine biodiversity in addition to being a migration corridor for whales and turtles and other migratory species.<sup>97</sup> Within days oil slicks had extended across 5,800 square miles and had entered Indonesian waters.

Weathered light crude oil was discovered 38 miles to the southeast of Rote Island off Indonesia. The Government of Indonesia has found that the oil spill from the *Montara* wellhead has damaged the marine environment in Indonesia's waters in the Timor Sea. The damage included socio-economic damage to the coastal communities whose living depends on the sea and its living resources.<sup>98</sup>

Indonesia held that according to national and regional regulations every offshore drilling company is obliged to have an insurance, covering marine environmental damage in case of incidents. It further held that in the absence of an international regime regulating exploration

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<sup>95</sup> LEG 97/14/1, of 10 September 2010, p. 1.

<sup>96</sup> Ibid.

<sup>97</sup> Ibid., p. 2.

<sup>98</sup> Ibid.

and exploitation activities, insurance companies, may have a limitation of liability to cover the cost and this may vary according to national law.<sup>99</sup>

The proposal also made reference to the *Deepwater Horizon* incident and Indonesia pointed out that large companies like BP who are involved in the offshore industry, may find the necessary funds to cover all damages, however this is questionable where an oil spill occurs from an oil rig which is operated by a smaller company for whom it is impossible to cover the full cost of the damage.<sup>100</sup>

Indonesia also made specific reference to the CLC 1992 and to the Fund Convention 1992 which together provide for the international liability and compensation regime for pollution damage to the environment resulting from spills of persistent oil from tankers. It was explained that under CLC 1992 the owner of a tanker is liable to pay compensation up to a certain limit for oil pollution damage, following a release of persistent oil from its tanker. If that amount does not satisfy all the admissible claims, the victim/s can claim further compensation under the Fund Convention 1992.<sup>101</sup>

The scope of the Indonesian proposal is based on two main elements, firstly on the fact that there are no treaties addressing the consequences of transboundary pollution caused by offshore exploration and exploitation. Indonesia believes that developing an international instrument on the issue would be the best solution to similar problems in the future. Secondly the scope of the proposal envisages the establishment of a supplementary fund regime. Indonesia listed several elements it believes should be included in the proposed liability and compensation regime. These elements<sup>102</sup> include strict liability of the owner or operator of the offshore oil installation, compulsory insurance undertaken by the owner or operator of the installation, direct access by virtue of which claims for compensation may be brought directly against the insurers and channeling of liability clauses which preclude claims for compensation being brought against individuals other than the owner or operator of the installation.

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<sup>99</sup> Ibid.

<sup>100</sup> Ibid., p. 3.

<sup>101</sup> Ibid.

<sup>102</sup> See Annex II of LEG 97/14/1.

Indonesia feels there is a compelling need to establish an international regime on this topic which has been demonstrated by the occurrence of the recent incidents of the *Deepwater Horizon* and the *Montara* oil platform.<sup>103</sup>

It was further stated that the proposed international instrument will be beneficial since it would create a uniform mechanism and it would ensure prompt and adequate compensation to the victims who suffered damage.<sup>104</sup>

Indonesia believes that its proposal is relevant to the IMO's instruments for the PPR to pollution, which are primarily focused on addressing pollution from ships.<sup>105</sup>

Indonesia carried out a brief analysis on existing IMO instruments on PPR covering offshore platforms. Firstly Indonesia made reference to Chapter 7 of MARPOL, wherein regulation 39 sets out special requirements for fixed or floating platforms.<sup>106</sup> The said regulation requires that fixed or floating platforms engaged in exploration shall comply with the requirements of Annex I of MARPOL applicable to ships of 400 GT and above, other than oil tankers. Such fixed or floating platforms shall be equipped as per requirements set out in regulations 12<sup>107</sup> and 14<sup>108</sup> of MARPOL, they should keep a record of all operations involving oil or oily mixture discharges and prohibit discharges into the sea of oil and oily mixtures, except when the oil content of the discharge without dilution does not exceed 15ppm.<sup>109</sup>

Secondly, Indonesia makes reference to the OPRC Convention which provides that State Parties require operators of offshore units under their jurisdiction to have oil pollution emergency plans, which are coordinated with the national system,<sup>110</sup> as well as report, without delay, any event on their offshore unit involving a discharge or probable discharge of oil.<sup>111</sup>

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<sup>103</sup> LEG 97/14/1, p. 3.

<sup>104</sup> Ibid.

<sup>105</sup> Ibid., p. 4.

<sup>106</sup> Ibid.

<sup>107</sup> Regulation 12 of MARPOL applies to tanks for oil residue (sludge).

<sup>108</sup> Regulation 14 of MARPOL speaks about the equipment used on offshore platforms.

<sup>109</sup> LEG 97/14/1, p. 4.

<sup>110</sup> See Article 3 of the OPRC Convention.

<sup>111</sup> See Article 4 of the OPRC Convention.

#### 4.2 The response and workings of the IMO:

The IMO Legal Committee, in its Report to the 97<sup>th</sup> session, regarding Indonesia's first question as to whether the subject of its proposal falls within the scope of IMO's objective,<sup>112</sup> noted that should it decide, in principle, to accept the proposal, Strategic Directive 7.2<sup>113</sup> of the Organization's Strategic Plan, would require modification.<sup>114</sup>

The Committee highlighted the views expressed in favour of exploring the Indonesian proposal. These views include, the fact that prompt measures are necessary to fill the gap where pollution damage was caused by transboundary spills. Another view on the issue of transboundary pollution, was that incidents involving transboundary pollution damage from offshore platforms might occur in any part of the world and not every country was able to tackle the problem on its own. Accordingly, international regulation was advisable.<sup>115</sup> Another State delegation opined that oil pollution knows no borders and, accordingly, it was important to have in place a mechanism to compensate victims.<sup>116</sup>

The Australian delegation, which was directly involved in the *Montara* well incident, was of the opinion that it is a good idea to develop an international instrument which deals with these kind of offshore incidents, and which will be applicable to spills which have transboundary effects.

On the other hand, the Norwegian delegation held that offshore oil exploration and exploitation differs from shipping, in the fact that offshore activity is conducted in the continental shelf of States and thus falls under the national jurisdiction of the coastal State. A spill of the kind is likely to cause harm to the coastal State and in most circumstances to the neighbouring States in immediate vicinity. The delegation was of the opinion that in such case bilateral agreements could be the best way to accommodate these concerns and it expressed doubts on whether an international regime should be adopted.

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<sup>112</sup> The Chairman of the IMO Legal Committee had to assess whether the Indonesian proposal complies with the criteria for general acceptance, in accordance with paragraph 2.4 of the Committee's Guidelines on work methods and organization of work.

<sup>113</sup> Article 1011(26) of Strategic Direction 7.2 of the Organization's Strategic Plan would require modification.

<sup>114</sup> LEG 97/15, of 1 December 2010, p. 28.

<sup>115</sup> *Ibid.*, p. 28.

<sup>116</sup> *Ibid.*

Malaysia's intervention on the subject was of interest to many other delegations. Malaysia stated that under current law, namely under the LOSC, the coastal States have jurisdiction over platforms exploring their EEZ resources. Malaysia is uncertain as to how an international instrument dealing with offshore oil activities, could enhance the national regimes. Malaysia also expressed its doubts as to whether shipping regimes could be adequate to deal with offshore oil activities. The Malaysian delegation pointed out that there is a 'gap', when it comes to transboundary pollution, in the sense that whilst activities being carried out within an EEZ of a State are regulated by the national laws of that coastal State, regulations on transboundary pollution are lacking, and so the 'new' regime to be considered by IMO should simply tackle transboundary oil spills.

Another view expressed during the session was that immovable oil storage units are outside the scope of the CLC 1992 and Fund Convention and should be regulated separately. Some opined that Indonesia's proposal was within the scope of IMO's mandate and IMO has in the past developed regulations relating to fixed platforms, including the 2005 SUA Fixed Platforms Protocols.<sup>117</sup>

The IMO Legal Committee also referred to other views expressed by State delegations which were more skeptical about the issue discussed. One of these views was that oil spills from offshore rigs differ from those from ships, since offshore exploration and exploitation activities are normally carried out on the continental shelf of States and are regulated by national law and bilateral agreements, thus making the need for a uniform, global regime questionable.<sup>118</sup> Other views expressed their concern as to whether IMO's mandate allowed the organization to deal with such a topic and others held that although IMO could be considered the competent Organisation by elimination, it was advisable to consult with other international bodies, which might have a role to play including the UNEP, the ISA, the UN/DOALOS and the ILC.<sup>119</sup> Some reservations were expressed as to whether the CLC 1992 and Fund Convention model was the most appropriate regime to be applied to offshore activities. Issues such as limitation of liability and the establishment of a fund would require special consideration to determine how exactly it might operate in the context of the Indonesian proposal.<sup>120</sup>

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<sup>117</sup> Ibid.

<sup>118</sup> Ibid.

<sup>119</sup> Ibid.

<sup>120</sup> Ibid.

More views were expressed saying that States already had the right to establish limits of liability for offshore activities, under the LOSC and that the matter should be considered only with regard to oil pollution extending beyond national jurisdiction.<sup>121</sup>

The response of the State delegations on this topic was considerably high. However although the proposal was theoretically attractive, many practical issues needed to be discussed. In conclusion the IMO Legal Committee suggested that in order to undertake work based on the Indonesian proposal it had to consider the international and regional instruments already in existence as well as the global initiative to protect the marine environment recently submitted by the Russian Federation in the G20 Summit held in Canada. During the G20 summit the President of the Russian Federation Dmitry Medvedev announced a proposal to establish an international mechanism for preventing and liquidating offshore accidents. He suggested that the big international companies involved in oil production should pay a percentage of their profits into a special consolidated fund and to make payments that would be used to insure against these kind of risks.<sup>122</sup>

The IMO Legal Committee held that further study was needed, including a survey of national laws and regional solutions to assess the existing legal structures and their effectiveness and to identify the gaps, if any, relating to the availability of compensation.<sup>123</sup> It also noted the offer of assistance from the observer delegations of UNEP and CMI in view of the work they had already undertaken in the areas of liability and compensation for environmental damage resulting from offshore craft.<sup>124</sup>

The IMO Legal Committee opined that States should work together intersessionally to develop the Indonesian proposal further, and the Indonesian delegation offered to co-ordinate this work.<sup>125</sup>

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<sup>121</sup> Ibid., p. 29.

<sup>122</sup> The Proposal by President Dmitry Medvedev is available online at: <http://www.rusembassy.ca/node/439>

<sup>123</sup> LEG 97/15, p. 29.

<sup>124</sup> Ibid.

<sup>125</sup> Ibid.

### 4.3 Reactions and Legislative Proposals at EU level:

The responses of EU member States and European countries to the *Deepwater Horizon* incident have varied considerably. While Norway has stated that it will not issue any more licenses of deepwater drilling until the *Deepwater Horizon* has been fully investigated, Ireland has stated its intention to significantly expand activity in the Irish offshore region and Italy's plans to allow drilling in the Adriatic appear to be going ahead despite concerns about tectonic activity in the area.<sup>126</sup>

In Europe it was acknowledged that the risks associated with offshore oil and gas exploration and exploitation, needed to be specifically addressed in an integrated and sustainable manner.<sup>127</sup> The EU Commission alarmingly recognized the need to improve the safety culture of offshore drilling and to reinforce existing insufficient level of prevention through “*thorough checks and controls*”, strengthened transparency and public scrutiny of the industry as well as of national regulators.<sup>128</sup> Further, the EU Commission is conducting a ‘*stress test*’ on oil drillings in EU waters in order to identify any gaps and weaknesses in the regulatory framework at EU level.<sup>129</sup>

The celebrated ELD<sup>130</sup> was put under review with a view to modify it, given its weaknesses for instance, the fact that it does not provide for financial security of operators, and the need to be extended in order to include damage to marine waters as a result of oil pollution caused by offshore installations.<sup>131</sup> In view of this it is noticeable that the legal framework governing offshore oil drilling in Europe is full of gaps. Remarkably for such a high-risk industry, no Europe-wide system exists to ensure the safe operation of oil rigs or to cope with the fallout from an incident like the *Deepwater Horizon*.

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<sup>126</sup> Luk, Sandy; *op. cit.*, p. 1.

<sup>127</sup> Raftopoulos, Evangelos; ‘Sustainable Governance of Offshore Oil and Gas Development in the Mediterranean: Revitalizing the Dormant Mediterranean Offshore Protocol’, 19 August 2010, p. 1. Online, available at: <<http://www.mepielanebulletin.gr/default.aspx?pid=18&CategoryId=4&ArticleId=29&Article=Sustainable-Governance-of-Offshore-Oil-and-Gas-Development-in-the-Mediterranean:-Revitalizing-the-Dormant-Mediterranean-Offshore-Protocol>>

<sup>128</sup> *Ibid.*, pp. 1-2.

<sup>129</sup> *Ibid.*

<sup>130</sup> 2004/35/EC.

<sup>131</sup> Raftopoulos, Evangelos; *op. cit.*, p. 2.

Existing international rules on oil pollution damage resulting from oil rig incidents need to be made to apply in a harmonized way right across the EU, this with particular reference to the OSPAR Convention and the OPRC Convention.<sup>132</sup>

During the Ministerial Meeting of the OSPAR Commission, held in Bergen, on 23 and 24 September 2010, the '*Bergen Statement 2010*' was adopted.<sup>133</sup> The *Bergen Statement* held that after the deep concern by the incident of the *Deepwater Horizon*, the Ministers together with the OSPAR Commission, reaffirmed their commitment to take all possible steps to prevent and eliminate pollution from offshore oil and gas activities.<sup>134</sup> Contracting parties are therefore as a precaution, reviewing existing frameworks, including the permitting of drilling activities in extreme conditions, taking extra care to implement all relevant learning from the *Deepwater Horizon* incident and continuing to evaluate activities on a case by case basis.<sup>135</sup> Reference was made to the initiatives taken by the EU Commission to establish a dialogue with national regulators and the offshore oil and gas industry amongst other initiatives taken by other bodies such as the NSOAF.<sup>136</sup> It was decided that by 2011 the Ministry and the OSPAR Commission will assess the results of all initiatives with a view to taking additional action by the OSPAR Commission if needed.<sup>137</sup>

Environmental lawyer Susie Wilks stated that offshore drilling is not covered by international conventions and the current EU laws regulating dangerous activities such as mining, do not account for offshore drilling. Thus the EU urgently needs to address these gaps. She agrees that there should be a pause on deep-sea drilling until the causes of the *Deepwater Horizon* are understood.<sup>138</sup> In fact European Energy Commissioner, Gunther Oettinger called for a '*de facto*' moratorium on all offshore drilling. However this plan failed to receive the support of

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<sup>132</sup> Luk, Sandy; *op. cit.*, p. 7.

<sup>133</sup> Statement on the Ministerial Meeting of the OSPAR Commission. Online, available at: <http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/10/449>

<sup>134</sup> Bergen Statement 2010, Ministerial Meeting of the OSPAR Commission, Bergen, 23-24 September 2010, p. 4, para. 18.

<sup>135</sup> *Ibid.*

<sup>136</sup> *Ibid.*

<sup>137</sup> *Ibid.*, p. 4, para. 19.

<sup>138</sup> Client Earth, Legislative Briefing, 'Better regulation essential to avoid *Deepwater Horizon* Europe', 7<sup>th</sup> September 2010. Online, available at: <http://www.clientearth.org/better-regulation-essential-to-avoid-deepwater-horizon-europe>

the European Parliament.<sup>139</sup> The EU Commission recommends specific EU legislation on oil platforms since such an EU wide approach is deemed necessary as the '*environmental, economic and social damages caused by a possible offshore accident do not know borders*'.<sup>140</sup>

Amongst various proposals for EU law reform, some suggested, the implementation of more rigorous rules for offshore installations requiring major accident prevention policies and emergency response plans at operator and member State level. It was further suggested to adopt a comprehensive framework for assigning liability and guaranteeing that companies have finance in place to compensate for damage caused to the environment by offshore accidents, and National Authorities shall be prohibited from issuing offshore drilling licenses unless all of the above requirements are met.<sup>141</sup>

From the above discussion, it is seen that the IMO and the EU are willing to discuss further this topic and take the necessary steps. A draft regime for liability and compensation applicable to offshore platforms or otherwise a regime which will be applicable solely in the case of transboundary pollution damage to neighbouring States could be a foreseeable result from the discussions held so far. Reference is to be made to the existent regimes and their applicability to offshore operations in order for one to be able to analyse the current regulatory framework applicable to offshore activities, and then determine what type of regime is best to be adopted. This will be the subject of the following Chapter.

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<sup>139</sup> Tobin, James; *op. cit.*, p. 16.

<sup>140</sup> *Ibid.*, p. 17.

<sup>141</sup> Client Earth, Legislative Briefing, 'Better regulation essential to avoid *Deepwater Horizon* Europe', 7<sup>th</sup> September 2010. Online, available at: <http://www.clientearth.org/better-regulation-essential-to-avoid-deepwater-horizon-europe>

## CHAPTER 5

### THE EFFECTIVENESS OF EXISTING LIABILITY AND COMPENSATION REGIMES AND THEIR APPLICABILITY TO OFFSHORE OIL POLLUTION

#### 5.1 An introduction to liability and compensation regimes:

At present, there are countless international agreements dealing with marine pollution prevention. Yet, while the primary aim of international law relating to marine pollution should be to prevent such pollution, a subsidiary aim should be to facilitate the bringing of claims for compensation by those who have suffered damage thereby.<sup>142</sup>

The shipping industry has for instance been the subject of global international agreements that address the issue of civil liability for damage arising from oil spills from ships. There is, however, a lack of comprehensive and binding global instrument that addresses the civil liability for oil pollution damage caused by offshore activities. Several rules are scattered in various global and regional agreements but there is no uniform approach. One reason which probably accounts for this state of affairs is the fact that there are very few cases of oil rig blowout incidents at sea compared to tanker incidents and the chances of a technical blowout are known to be remote thanks to the technological achievements of recent years.<sup>143</sup> However, the chance of a catastrophic blowout always exists because offshore operations present a constant risk of environmental pollution and the consequences of such incidents are disastrous.

A second probable reason for the lack of a concrete global instrument on the subject is the fact that offshore operations mostly take place on the continental shelf and therefore fall under the national jurisdiction of the coastal States and under the maritime zones regime of the LOSC. National laws therefore regulate such operations.<sup>144</sup>

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<sup>142</sup> Agyebeng, Kissi; *op. cit.*, p. 3.

<sup>143</sup> *Ibid.*, p. 4.

<sup>144</sup> *Ibid.*, p. 5.

## 5.2 International Regime on liability and compensation for pollution damage: The CLC:

At present there is no international regime in force which deals specifically with compensation for pollution from offshore craft, and questions have commonly arose as to whether FSU's and FPSO's and similar units are governed by international regimes applicable to ships.<sup>145</sup>

The trigger for most of the current international regimes for liability and compensation for pollution damage was the incident of 18 March 1967 where the *Torrey Canyon* ran aground spilling 60,000 tonnes of its cargo of crude oil into the sea, polluting hundreds of miles of coastline and beaches.<sup>146</sup>

Following this incident the IMO Legal Committee, especially established for that purpose,<sup>147</sup> set out to draft a convention dealing with the civil liability of the owners of tankers for pollution damage caused by persistent oil. The result of this work was the adoption of the 1969 CLC which imposed liability on shipowners and set limits<sup>148</sup> on the amount of compensation payable. Furthermore, the Fund Convention was adopted in 1971 in response to concerns expressed that the 1969 CLC limits were too low.<sup>149</sup>

Subsequently both Conventions were amended in 1992 and additionally an optional third tier of compensation complementing the 1992 CLC and the 1992 Fund, was adopted in 2003 following the sinking of the *Erika* and the *Prestige*. This is known as the Supplementary Fund Protocol.<sup>150</sup>

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<sup>145</sup> De La Rue, Colin & Anderson, Charles. B; Shipping and the Environment, Law and practice, Informa, London 2009, p. 243.

<sup>146</sup> Balkin, Rosalie; 'The Rise and Rise of IMO's Liability and Compensation Regimes', in T.F. Ndiaye and R.Wolfrum (eds), Law of the Sea, Environmental Law and Settlement of Disputes: Liber Amicorum Judge Thomas A. Mensah, Leiden/Boston: Martinus Nijhoff Publishers, 2007, p. 687 at 703.

<sup>147</sup> The Legal Committee was elevated to the status of a permanent organ of the IMO in 1975.

<sup>148</sup> Under the concept of limitation of liability the shipowner is entitled to limit his liability for maritime claims up to a maximum sum regardless of the actual amount of the claims. The 1969 CLC as amended in 1992 is a stand alone regime, and claims for oil pollution damage within the meaning of the 1969 CLC as amended in 1992, are excluded from the application of the LLMC Convention. For instance other International Conventions such as the Bunkers Convention do not create a separate (free- standing) limitation regime like the 1969 CLC as amended in 1992.

<sup>149</sup> Martínez Gutiérrez, Norman.A.; Limitation of Liability in International Maritime Conventions, Routledge, London/New York, 2011, pp. 145–146.

<sup>150</sup> Ibid., p. 146.

The 1992 CLC has a number of key elements, one of them being strict liability. The shipowner is strictly liable for pollution damage unless he proves that the damage was caused by any of the exceptions now common in most liability and compensation regimes.<sup>151</sup>

Another key element is that of requiring the shipowner to take out compulsory insurance, which is aimed at ensuring that the shipowner always has available the necessary financial resources to pay for any compensation that might be decided upon. This is coupled with the provision that any claim for compensation may be brought directly against the insurer<sup>152</sup> rather than the injured party being required to proceed in the first instance against the shipowner. These provisions have resulted in substantially simplifying and expediting the process of recovery of damages.<sup>153</sup>

To balance the obligation to take out compulsory insurance, shipowners are entitled to limit their liability.<sup>154</sup> Under the 1992 CLC (as amended in 2000) the shipowner is entitled to limit his liability under Article V.<sup>155</sup> Notwithstanding this provision the shipowner will not be entitled to limit his liability if it is proved that the pollution damage resulted *'from his personal act or omission, committed with the intent to cause such damage, recklessly and with knowledge that such damage would probably result'*.<sup>156</sup> It is also noteworthy that for the shipowner to avail himself of the benefit of limitation *'the owner shall constitute a fund for the total sum representing the limit of his liability'*.<sup>157</sup> In order to speed up the process of amendments to the limitation ceiling, a new clause introduced in the 1992 CLC empowers the IMO Legal Committee to amend the limits of liability using the so-called tacit amendment procedure.<sup>158</sup>

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<sup>151</sup> Ibid., p. 148.

<sup>152</sup> This is also known as the right of direct action.

<sup>153</sup> Balkin, Rosalie; *op. cit.*, p. 690.

<sup>154</sup> Ibid., p. 691.

<sup>155</sup> Article V provides that that shipowner is entitled to limit his liability up to 4,510,000 units of account for a ship not exceeding 5,000 units of tonnage; in addition to that amount for a ship with a tonnage in excess thereof, for each additional unit of tonnage, 631 units of account; provided however, that this aggregate amount shall not in any event exceed 89,770,000 units of account. The unit of account is the Special Drawing Right (SDR).

<sup>156</sup> Article V(2).

<sup>157</sup> Martínez Gutiérrez. Norman.A.; *op. cit.*, p. 151.

<sup>158</sup> Balkin, Rosalie; *op. cit.*, pp. 691-692.

Alongside the compulsory insurance requisite, there are the so-called channelling of liability provisions which require claims to be pursued against the registered owner. This means that no claim for pollution damage might be levied against servants or agents of the shipowner, crew members, pilots, charterers, salvors or persons taking preventive measures.<sup>159</sup>

These key elements have benefitted claimants especially those without the financial means to sustain long and costly litigation.

The question whether the compensation for oil pollution from an offshore unit falls within the scope of the 1992 CLC is important for a number of reasons. The answer will determine a number of issues including the question whether the owner may limit liability for pollution in accordance with the 1992 CLC, whether the liability of other parties, such as managers, operators or charterers of the unit, is excluded by the channeling provisions of the 1992 CLC, and whether the unit must carry a certificate of insurance or other financial security complying with the 1992 CLC in order to be permitted to operate.<sup>160</sup>

Under the 1992 CLC and the 1992 Fund “*Ship* means any sea-going vessel and seaborne craft of any type whatsoever constructed or adapted for the carriage of oil in bulk as cargo, provided that a ship capable of carrying oil and other cargoes shall be regarded as a ship only when it is actually carrying oil in bulk as cargo...”.<sup>161</sup>

The principal change in the definition of a ‘*ship*’ from the 1969 CLC lies in the fact that under the 1992 CLC it is no longer necessary for the vessel to be ‘*actually carrying oil in bulk as cargo*’, it is sufficient for it to be ‘*constructed or adapted*’ to do so. The principal reason for this change, originally adopted in 1984, was to widen the scope of the compensation regime to include bunker spills from oil tankers in ballast.<sup>162</sup>

It remains uncertain as to what types of structures are to be regarded within the scope of the definition, particularly when the different types of offshore units and installations have become increasingly varied and many of them are designed as multipurpose units.<sup>163</sup>

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<sup>159</sup> Ibid., pp. 692-693.

<sup>160</sup> De La Rue, Colin & Anderson, Charles. B; *op. cit.*, p. 244.

<sup>161</sup> Article I of the 1992 CLC and Article 1 of the 1992 Fund.

<sup>162</sup> De La Rue, Colin & Anderson, Charles. B.; *op. cit.*, p. 246.

<sup>163</sup> Ibid.

The issue was debated in the 1992 Fund Assembly in April/May 1998, in response to concerns expressed by Fund member States that the applicability of the compensation regime to craft operating off their shores should be clarified.<sup>164</sup> The Working Group noted that many units are fitted with propulsion and designed to be able to transport oil from the well-head to shore side terminals rather than be employed solely for storage.<sup>165</sup> One of the approaches suggested was to consider FSU's and FPSO's as falling within the definition of 'ship' only when disconnected from exploitation and production facilities.<sup>166</sup>

The 1992 Fund Assembly in October 1999 decided that offshore craft should be regarded as 'ships' under the 1992 CLC and the 1992 Fund only when they carry oil as cargo on a voyage to or from a port of terminal outside the field in which they normally operate.<sup>167</sup> Offshore craft would fall outside the scope of 1992 CLC and 1992 Fund when they leave an offshore oil field for operational reasons or simply to avoid bad weather. It emphasized, however that in any event a decision as to whether the 1992 CLC and the 1992 Fund apply to a specific incident should be taken in the light of particular circumstances of the case.<sup>168</sup>

A number of delegations at the time suggested that even if a particular offshore unit is considered a 'ship', an incident in which it is involved would be governed by the 1992 CLC only if it gave rise to an actual or threatened escape of 'oil'. In their view, oil held in storage would not satisfy the definition of 'oil' in the absence of carriage.<sup>169</sup>

In the *Slops* litigation it was held the 1992 CLC and the 1992 Fund applied to an incident involving a craft used solely for storage of oil.<sup>170</sup> The *Slops* had originally been constructed for the carriage of oil in bulk as cargo. However, in 1995 she was converted into a facility for receiving and processing oily waste. Following the conversion, the *Slops* remained permanently at anchor and was used exclusively as a storage and processing unit. In this case the final decision of the Greek Supreme Court held that the definition of a 'ship' in the 1992

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<sup>164</sup> Ibid.

<sup>165</sup> Ibid.

<sup>166</sup> Ibid.

<sup>167</sup> Ibid., p. 246.

<sup>168</sup> Ibid.

<sup>169</sup> Ibid., pp. 246–247.

<sup>170</sup> Ibid., p. 247.

CLC and in the 1992 Fund described two types of ships, namely: (a) “*any sea-going vessel and seaborne craft of any type whatsoever constructed or adapted for the carriage of oil in bulk as cargo*” and (b) ships “*capable of carrying oil in bulk and other cargoes*” i.e. combination carriers.<sup>171</sup>

The Court considered that the requirement to be ‘*actually carrying oil in bulk as cargo ...*’ referred only to combination carriers and not to ships in the first category. For this reason the Court took the view that the *Slops* should be regarded as a ‘ship’ as defined in the 1992 CLC and in the 1992 Fund, and it referred the case back to the Court of Appeal to examine the pollution claims on their merits. In February 2008 the Court of Appeal gave judgment awarding the claimants the full amount of their claim, interest and costs.<sup>172</sup>

In some but by no means all jurisdictions where offshore craft are in operation liability for maritime claims may be limited in accordance with the LLMC Convention.<sup>173</sup>

The application to offshore units of LLMC Convention, or of implementing legislation in contracting States, depends mainly on whether such craft are ships to which the Convention applies. The LLMC Convention refers to a ‘*sea-going ship*’ without further definition, but excludes from its scope ‘*floating platforms constructed for the purpose of exploring or exploiting the natural resources of the seabed or the subsoil thereof*’.<sup>174</sup> There is room however for different views as to precisely what offshore units fall within this exclusion, and particularly whether it applies to craft such as FPSO’s and FSU’s.<sup>175</sup>

### **5.3 An example of a Regional Regime dealing with Offshore Activities: the Offshore Protocol to the Barcelona Convention:**

The trend since the 1970’s has been the adoption of several regional conventions which attempt to deal with offshore activities. The reason for this is that great geographical differences between various regions, make efforts towards global cooperation both complicated and unnecessary. Some believe that as the presence of oil rigs and assorted

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<sup>171</sup> Ibid.

<sup>172</sup> Ibid.

<sup>173</sup> Ibid., p. 248.

<sup>174</sup> Article 15(5)(b) of the LLMC 1976 as amended by the Protocol of 1996.

<sup>175</sup> De La Rue, Colin & Anderson, Charles. B.; *op. cit.*, pp. 248-249.

platforms seems to be most evident in coastal waters the pollution problems they cause are better tackled by regional agreements that take into account the different conditions for any particular area.<sup>176</sup>

Within the framework of the Barcelona Convention the Offshore Protocol was adopted on 14 October 1994, in Madrid.

In addition the exploration and exploitation of the natural resources of the Mediterranean Sea has increased in recent years.<sup>177</sup> Indeed, offshore oil installations are presently working in Libya, Egypt, Italy and Croatia.<sup>178</sup>

The concerns which were brought about by the incident of the *Deepwater Horizon*, threw new light on the existing situation in the Mediterranean being particularly vulnerable to all sources of pollution.<sup>179</sup> Eyes were drawn towards the Offshore Protocol, which had fell into oblivion<sup>180</sup> and which is referred to by Raftopoulos as the '*dormant*' Protocol.<sup>181</sup>

The Offshore Protocol received its sixth ratification on the 22 November 2010 by Syria, and entered into force 30 days later. The other five countries which have ratified the Protocol are Albania, Cyprus, Libyan Arab Jamahiriya, Morocco and Tunisia. Malta is only a signatory to the Protocol and has not yet ratified it. The Offshore Protocol applies to the Mediterranean Sea area including the continental shelf, and the seabed and its subsoil. It applies to internal waters, extending in the case of watercourses up to the freshwater limits, while wetlands and coastal areas may also be included if the Parties decide so. This is of particular importance since a great deal of offshore activities oil and gas exploration and exploitation are currently carried out in this area.<sup>182</sup> Taking into account the existing legal disputes concerning the delimitation of the continental shelf in the Mediterranean, the Protocol clearly stipulates that

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<sup>176</sup> Gavouneli, Maria; *op. cit.*, p. 43.

<sup>177</sup> Esmacili, Hossein; *op. cit.*, p. 162.

<sup>178</sup> Raftopoulos, Evangelos; *op. cit.*, p. 2.

<sup>179</sup> *Ibid.*, p. 1.

<sup>180</sup> *Ibid.*, p. 2.

<sup>181</sup> *Ibid.*, p. 6.

<sup>182</sup> *Ibid.*, p. 4.

it does not prejudice the rights of any State concerning the delimitation of the continental shelf.<sup>183</sup>

The Offshore Protocol covers the full circle of activities concerning exploration and exploitation of resources in the Mediterranean Sea; including scientific activities, and covers also all types of installations whether fixed or floating and any integral part thereof engaged in offshore activities.<sup>184</sup>

All offshore activities, are subject to prior written authorization which will be granted only if the operator complies with a list of requirements.<sup>185</sup> The Protocol establishes a ‘*due diligence*’ obligation of the Parties, and they are obliged to ensure that all necessary measures are taken so that offshore activities, within their jurisdiction, are in accordance with the Protocol and do not cause pollution.<sup>186</sup> The Parties are obliged to ensure that the operator of the offshore unit uses the best available techniques which is ‘*environmentally effective and economically appropriate*’.<sup>187</sup>

Additionally the operators are required to have a contingency plan to combat accidental pollution.<sup>188</sup>

Addressing the issue of transboundary pollution the Protocol establishes the obligation of the Parties to take the necessary measures to ensure that activities do not cause pollution beyond the limits of their jurisdiction.<sup>189</sup>

More importantly is Article 27 of the Protocol, which deals with liability and compensation for damage caused by offshore activities.<sup>190</sup> In this regard the Protocol lays down in general terms that the Parties undertake to cooperate as soon as possible in formulating and adopting appropriate rules and procedures for the determination of liability and compensation for

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<sup>183</sup> Ibid.

<sup>184</sup> Ibid.

<sup>185</sup> Gavouneli, Maria; *op. cit.*, p. 44.

<sup>186</sup> Raftopoulos, Evangelos; *op. cit.*, p. 4.

<sup>187</sup> Ibid., p. 5.

<sup>188</sup> Ibid.

<sup>189</sup> Ibid., p. 6.

<sup>190</sup> Ibid.

damage resulting from offshore activities.<sup>191</sup> It further states that pending development of such procedures each Party shall take all necessary measures to ensure that liability for damage caused by the activities is imposed on operators, and they shall be required to pay prompt and adequate compensation (strict liability), and the operators shall have and maintain insurance cover or other financial security in order to ensure compensation for damages caused by the offshore activities (compulsory insurance).<sup>192</sup>

Despite its strong wording, Article 27, which was ahead of its time at its adoption, remains deficient, and requires reconstruction in the light of contemporary developments.<sup>193</sup> No doubt that this issue is of utmost importance for the sustainable environmental governance of this Protocol.<sup>194</sup>

There are other regional regimes dealing with offshore activities, and which apply to specific ocean areas, such as the 1978 Kuwait Emergency Protocol,<sup>195</sup> the 1981 Abidjan Pollution Emergency Protocol,<sup>196</sup> which both fall under the UNEP Regional Seas Programme and the OSPAR Convention of 1992.<sup>197</sup>

Despite the existence of these various regional agreements there is still an unconvincing and highly unsatisfactory state for a civil liability regime for pollution damage resulting from offshore operations.<sup>198</sup> These regional arrangements attempt to address the issue of liability directly. However, the principles are laid down in general terms and the action is left with the State Parties. Moreover, the absence of a global convention on the issue of civil liability for pollution damage resulting from offshore operations, coupled with the fact that the regional agreements apply to areas within the jurisdiction of State Parties, means that no liability regime applies to the high seas and other areas beyond the limits of national jurisdiction.<sup>199</sup>

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<sup>191</sup> Ibid.

<sup>192</sup> Ibid.

<sup>193</sup> Ibid., p. 7.

<sup>194</sup> Ibid.

<sup>195</sup> This Protocol deals with the region of the Persian Gulf.

<sup>196</sup> This Protocol deals with the region of West and Central Africa.

<sup>197</sup> This Convention covers the North-East Atlantic region and replaces the 1972 Oslo Convention and the 1974 Paris Convention.

<sup>198</sup> Agyebeng, Kissi; *op. cit.*, p. 28.

<sup>199</sup> Ibid.

The next sections of this work will examine two important attempts at a comprehensive international regime on offshore activities.

#### 5.4 The CLEE:

In 1976 a conference in London produced the CLEE.<sup>200</sup> It is the only international convention specifically dealing with liability for damage caused by offshore activities and regarded by some authors as the ‘forgotten’ convention.<sup>201</sup>

Nine European States were involved in the agreement and it remains open for ratification or accession. However this now seems unlikely considering the Convention’s age.<sup>202</sup>

The CLEE contains certain provisions concerning civil liability for pollution damage caused by offshore installations. According to Article 3 of the CLEE, *‘except as provided in paragraphs 3, 4 and 5 of this Article, the operator of the installation at the time of an incident is liable for any pollution damage resulting from the incident’*. Amongst the exceptions provided in paragraphs 3, 4 and 5 are damage resulting from war and acts of God.<sup>203</sup>

The operators of an installation are jointly and severally liable where the installation has more than one operator. Additionally in cases when oil has been discharged from one installation as a result of an incident, and during the course of the incident there is a change of operator, all operators of the installation are jointly liable for all such damage.<sup>204</sup>

The liability of the operator under the CLEE is limited to 40 million SDR. Moreover there is no limit on liability if it is proved that the pollution damage occurred as a result of an act or omission by the operator himself, done deliberately, with actual knowledge that pollution damage would result.<sup>205</sup>

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<sup>200</sup> See LEG 78/10 of 13 August 1998, para. 8.1.

<sup>201</sup> Raftopoulos, Evangelos; *op. cit.*, p. 7.

<sup>202</sup> De La Rue, Colin; *op. cit.*, p. 221.

<sup>203</sup> Esmacili, Hossein; *op. cit.*, p. 171.

<sup>204</sup> *Ibid.*

<sup>205</sup> *Ibid.*

The CLEE attempted to build on the model of the 1969 CLC and it includes many similar key elements such as strict liability and limited liability of the operator of the installation.<sup>206</sup>

Some States however were unwilling to accept the notion of limited liability in the offshore field, and as a result an additional article was included giving the Controlling State the right to fix a higher limit than that provided in Article 6 of the CLEE or even to impose no limit at all.<sup>207</sup> This issue created much controversy during the conference and proved to be an impediment to the Convention's adoption.<sup>208</sup>

Moreover the CLEE did not include provisions for the establishment of an industry-contributed fund to cover liabilities in excess of the limits laid down in Article 6 of the CLEE.<sup>209</sup>

An important aspect of the CLEE is its jurisdictional scope. The CLEE refers to 'installations', which are defined so as to cover all fixed or mobile drilling units, storage installations, and most pipelines. In other words, the CLEE refers to the industry as a whole and not as a sub-section of the shipping industry.<sup>210</sup> When considering the definition of 'installation', it can be interpreted that an underlying assumption of the treaty rested on the idea that offshore rigs were considered legal entities unto themselves and required a separate international regime.<sup>211</sup> In fact the 1977 Rio Draft Convention by CMI, which will be dealt with hereunder, failed to adopt this position.<sup>212</sup>

## 5.5 The Rio Draft:

In 1977 another attempt was made to create an international legal instrument covering not only pollution but other important aspects relating to offshore units. The CMI at the request of IMO prepared the Rio Draft.<sup>213</sup> The Rio Draft was submitted to the IMO for consideration but

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<sup>206</sup> See LEG 78/10, para. 8.1.

<sup>207</sup> *Ibid.*, para. 8.2.

<sup>208</sup> De La Rue, Colin; *op. cit.*, p. 221.

<sup>209</sup> See LEG 78/10, para. 8.3.

<sup>210</sup> De La Rue, Colin; *op. cit.*, p. 221.

<sup>211</sup> *Ibid.*, p. 222.

<sup>212</sup> *Ibid.*

<sup>213</sup> Kashubsky Mikhail, Marine Pollution from the Offshore Oil & Gas Industry – review of Major Conventions and Russian Law, Part 1, *Maritime Studies*, November-December 2006, p. 5.

the IMO gave priority to other matters which were regarded as more important at that time. Consequently, the Rio Draft was not considered until the early 1990's.<sup>214</sup> In 1994 a revised version was adopted at a CMI Conference in Sydney, which became known as the Sydney Draft and which essentially was an improvement on the Rio Draft.<sup>215</sup> One is to note that Article 7 of the Sydney Draft, made the 1969 CLC and subsequent protocols apply to offshore craft to the extent that they would not otherwise apply.<sup>216</sup> With respect to limitation of liability, Article 5 of the Sydney Draft, made the LLMC Convention, amongst other conventions dealing with limitation of liability of ship-owners, apply to offshore craft to which they would not otherwise apply and notwithstanding the provisions of Article 15(5)<sup>217</sup> of the LLMC Convention. The Sydney Draft includes other provisions on offshore craft in relation to collisions,<sup>218</sup> salvage<sup>219</sup>, arrest<sup>220</sup> and nationality<sup>221</sup>. The Sydney Draft however, needed further development to become an effective regulatory framework.<sup>222</sup>

Following the 1994 Sydney Conference the CMI established an international working group to consider the need for a convention on offshore units<sup>223</sup> and consulted various maritime law associations. It was able to identify a number of topics which were not covered by the Sydney Draft. The working group continued its work and held a number of meetings on the subject.<sup>224</sup> However at its 83<sup>rd</sup> session the IMO Legal Committee concluded that this subject should be removed from the IMO work programme. In light of this decision the CMI also decided to cease work on this topic.<sup>225</sup>

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<sup>214</sup> Ibid.

<sup>215</sup> Ibid.

<sup>216</sup> LEG 78/10, para 8.10.

<sup>217</sup> Article 15(5) excludes from the application of the LLMC Convention, floating platforms constructed for the purpose of exploring or exploiting the natural resources of the sea-bed or the subsoil thereof.

<sup>218</sup> See Article 2 of the Sydney Draft.

<sup>219</sup> See Article 3 of the Sydney Draft.

<sup>220</sup> See Article 4 of the Sydney Draft.

<sup>221</sup> See Article 11 of the Sydney Draft.

<sup>222</sup> Ibid.

<sup>223</sup> Ibid.

<sup>224</sup> Ibid.

<sup>225</sup> Ibid.

The IADC, had expressed its view of seeing the development of an Offshore Mobile Craft Convention as unnecessary.<sup>226</sup> In relation to liability and compensation for pollution damage caused by offshore activities the IADC held, that if a Bunkers Convention is ever adopted it should clearly and unambiguously include MODU's within its scope.<sup>227</sup> It further stressed that it is inappropriate to create a linkage of liability for pollution between MOU's and the wells they may construct or service, thus on this point it agreed with the CMI which held that a distinction has to be drawn between pollutant discharges emanating from natural reservoirs and those from the craft themselves.<sup>228</sup>

During the conference in 1977, it could not be decided whether to treat '*offshore mobile craft*' as ships *per se* or to create and apply a distinct legal regime. The majority of the CMI's national associations felt that, in certain areas such as limitation of liability, pollution liability and maritime liens, special treatment for these craft was required.<sup>229</sup>

The question of environmental liability is one of today's most debated issues. Yet whilst liability for an environmental disaster was a concern in the past decades, the stakes have simply been raised since the 1970's.<sup>230</sup> What may have been an 'important consideration' to delegates at the 1977 CMI Conference may now be one of the most significant aspects of a future agreement.

The CMI also held that offshore activities, such as drilling operations and the oil production processes, should not be dealt with by the CMI, nor should the liabilities or rights of the drilling operator or concessionaire.<sup>231</sup> Only the problems confronting the rig owner, demise charterer, or other maritime manager responsible for the maritime and nautical running of the craft should be covered by the convention. Furthermore stationary and permanent installations such as the production platforms, fall outside the scope of the work.<sup>232</sup>

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<sup>226</sup> LEG 79/10 of 12 February 1999, p. 4.

<sup>227</sup> Ibid.

<sup>228</sup> Ibid.

<sup>229</sup> De La Rue, Colin; *op. cit.*, p. 222.

<sup>230</sup> Ibid., pp. 217-218.

<sup>231</sup> Ibid., p. 222.

<sup>232</sup> Ibid.

The Rio Draft applies to ‘craft’, defined under Article 1 to mean mobile structures, whether during operation they are floating or fixed to the seabed, for use in offshore operations.<sup>233</sup> This encompasses most of the drilling units but excludes permanent installations such as production platforms.<sup>234</sup>

The Rio Draft was never widely accepted. While it purports to establish a legal regime for offshore drilling units, it specifically excludes a number of crucial structures in the operation of a field.<sup>235</sup> The Rio Draft gives special treatment for some of the most important aspects of operations, but fails to cater for liability for all blowouts, perhaps the most important environmental aspect of the offshore industry.<sup>236</sup>

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<sup>233</sup> Ibid., p. 223.

<sup>234</sup> Ibid.

<sup>235</sup> Ibid.

<sup>236</sup> Ibid.

## CONCLUSIONS

It has been pointed out in this dissertation that there is a felt absence of an international instrument on civil liability for pollution damage caused by offshore operations. This dissertation examined the various types of pollutants which can emanate from these operations. Moreover it was seen that pollution can also cause transboundary harm, thus causing pollution not only to the coastal State wherein offshore operations are being conducted, but also to the neighbouring States. Indeed the roots of the maxim of '*sic utere tuo, ut alienum non laedas*' were delved into for a better understanding of this principle.

The adverse effects and consequences of pollution from offshore activities was highlighted in the light of the *Deepwater Horizon* incident which has triggered off a number of USA legislative proposals. Indeed the *Deepwater Horizon* was a concern not only to the USA but also to some international organizations, namely the IMO and the EU. At IMO a proposal was submitted by Indonesia for the development of a liability and compensation regime for oil pollution damage resulting from offshore oil exploration and exploitation. The proposal was debated during the 97<sup>th</sup> session of the IMO Legal Committee and there were various reactions by State delegations. Even at EU level, this topic raised several concerns and various legislative proposals were put forward. This shows that the incident of the *Deepwater Horizon*, threw new light on the existing regulatory situation both on an international and European level.

In an attempt to better understand the current legal framework covering the civil liability and compensation, for pollution damage caused by offshore activities, the final chapter of this dissertation, examined the civil liability regime of the 1992 CLC and 1992 Fund, applicable to tanker vessels. However little success was obtained when trying to assimilate the civil liability regime applicable to the shipping industry to offshore operations. This is said in the light of the various dissimilarities which exist between ships and offshore installations. For instance while it may be difficult to estimate the potential severity of future uncontrolled blowouts of offshore installations, the maximum storage capacity of ships is known and the potential risk is calculable.

In addition this dissertation analysed the 1994 Offshore Protocol as one of the regional efforts done to regulate offshore activities. This work also studied the international attempts of adopting a global convention dealing with offshore activities, namely the CLEE and the Rio Draft, which failed to receive sufficient governmental support, and without which there is very little possibility of such conventions being adopted internationally.

It could be argued that this may be explained by a number of factors. Firstly, it is true that the offshore activities contribute very little pollution to the marine environment. Secondly, it was observed that there has been opposition to adopt a global convention from various State delegations. Indeed some believe that this topic is better regulated by the domestic law of the coastal States or by regional regimes. Other States believe that bilateral agreements between the States involved could adequately deal with all aspects of offshore activities taking place within their respective maritime zones.

In conclusion it is felt that a global convention on the subject is badly needed. Such an arrangement must possess certain features, including its application to all maritime zones. This is advisable due to the fast technological advancements taking place in this industry which would permit offshore exploration and exploitation to be undertaken beyond the maritime zones subject to national jurisdiction. It is also important for such regime to include an efficient enforcement mechanism, otherwise the regime would simply be a declaration of intentions. In addition, it must lay out a clear definition of an offshore installation, including both fixed and mobile installations. It is believed that such installations, should be distinguished from ships, and this is why there is the need to adopt a stand alone regime which applies exclusively to these offshore installations.

A very important feature should be the basis and extent of liability of the operator or owner, as the case may be, of the offshore installation which has caused the pollution damage. The doctrine of strict liability has been utilized in other international conventions, and is now widely accepted. The question remains whether this strict liability should be imposed without any limitation whatsoever. If the concept of limitation of liability is to apply in this sector, one could argue that the limits of liability should be set out as high as possible in order to sufficiently deal with the claims for compensation by the victims. Moreover it would also be wise to adopt a fund regime similar to the 1992 Fund and the Supplementary Fund Protocol, so that if the victim is not adequately compensated by the owner or operator of the installation, the victim could further claim the remaining amount of compensation from these Funds. This proposed fund regime, would receive contributions from the oil exploration and exploitation companies, perhaps pro rata to their oil production levels. The 1992 CLC regime has proved to be an efficient regime regulating liability and compensation for oil pollution damage from ships and it should be taken as a starting point for the adoption of a global regime for offshore activities. Perhaps the simplest way to achieve this is for the international community to revise the CLEE, especially the limits of liability which should be increased from 40 million SDR, and fill in the other gaps which the CLEE failed to address. Care will

be required to incorporate provisions in order to avoid duplication of liability for pollution damage on both the operator of an offshore installation under a regime based on the CLEE principles and the owner of an installation which falls within the definition of a ship under the principles applicable to ship-source pollution.

Technological advancements and the increase in the demand for petroleum products, will increase the possibility of further incidents involving offshore operations, leading to an increase of pollution damage from such activities. This is why a global regime should be adopted to cater for such incidents. The trend so far has been to wait for the occurrence of an incident causing immense catastrophic damage, following which an international regime is adopted. It is believed that the long awaited incident has now occurred on the *Deepwater Horizon* oil rig, and it is time for the international community to take an affirmative stand towards the adoption of an international regime dealing with offshore activities.

At the 97<sup>th</sup> session of the IMO Legal Committee, the state delegations expressed diverging opinions, and some still seemed very reluctant towards the adoption of an international regime dealing with liability and compensation for pollution caused by exploration and exploitation activities. However the participation was high, and all States expressed their concern towards the environmental damage caused by such incidents. This topic is going to be discussed in the next sessions of the IMO and thus it is believed that further discussions are needed. Hopefully there will not be the need for another *Deepwater Horizon* incident to occur, for all the nations to realize that an international regime on this subject would provide an adequate regulatory framework to better deal with such incidents.

## ANNEX I

### Statistical Information on Offshore Oil Rigs:

Accurate figures regarding the numbers of existing oil rigs are not easy to come by and reported numbers vary widely. The statistical information provided in this dissertation has been taken from online websites that may not be entirely accurate but they are, in any case, only provided as background information and to set the legal context to the discussion presented in this dissertation.

According to Baker Hughes International Rig Count<sup>237</sup>, as at January 2011, the total International Rig Count including land and offshore rigs amounts to 1,161, out of which 308 are offshore rigs. The total European Rig Count is 117 out of which 54 are offshore rigs.<sup>238</sup>

On the other hand according to Rigzone, which is an industry website, there are currently about 716 contracted exploration rigs world-wide, in various stages of their lives, from construction to drilling. Out of these, 20 rigs are operating in the Mediterranean region, 142 contracted rigs are operating in the European North Sea region and 94 contracted rigs are currently operating in the Gulf of Mexico. Other considerable number of contracted rigs are operating from South and Southeast Asia, Brazil, Venezuela, West Africa, and in the Persian Gulf.<sup>239</sup>

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<sup>237</sup> See *Infra.*, pp.39 - 40

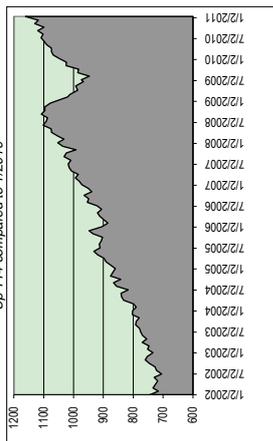
<sup>238</sup> [http://investor.shareholder.com/bhi/rig\\_counts/rc\\_index.cfm](http://investor.shareholder.com/bhi/rig_counts/rc_index.cfm)

<sup>239</sup> [http://www.rigzone.com/data/rig\\_report.asp?rpt=reg](http://www.rigzone.com/data/rig_report.asp?rpt=reg)

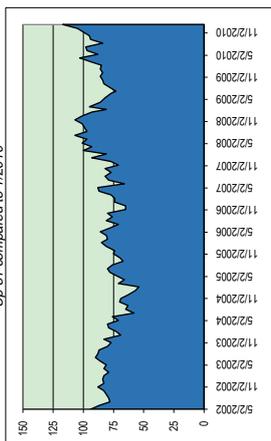
# Baker Hughes International Rig Count for January 2011

## Total

The international rig count for 1/2011 was 1161  
 Up 43 compared to 12/2010  
 Up 114 compared to 1/2010

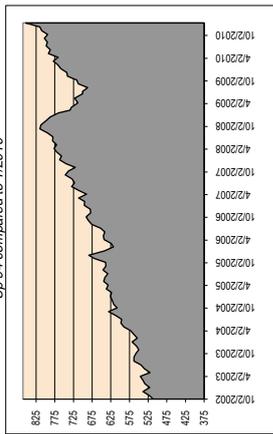


The Europe rig count for 1/2011 was 117  
 Up 12 compared to 12/2010  
 Up 31 compared to 1/2010

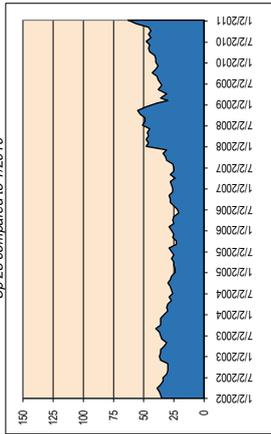


## Land

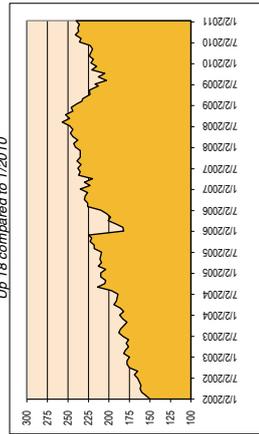
The international land rig count for 1/2011 was 853  
 Up 38 compared to 12/2010  
 Up 94 compared to 1/2010



The Europe land rig count for 1/2011 was 63  
 Up 7 compared to 12/2010  
 Up 23 compared to 1/2010

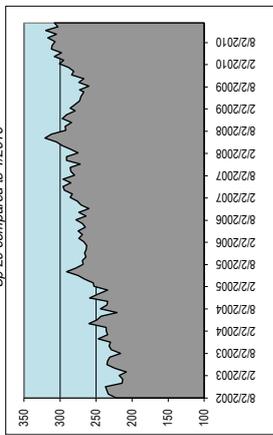


The Middle East land rig count for 1/2011 was 240  
 Up 4 compared to 12/2010  
 Up 18 compared to 1/2010

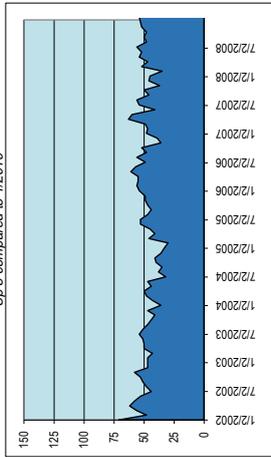


## Offshore

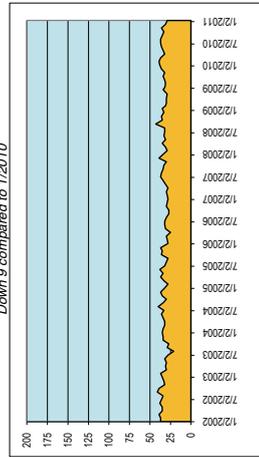
The international offshore rig count for 1/2011 was 308  
 Up 5 compared to 12/2010  
 Up 20 compared to 1/2010



The Europe offshore rig count for 1/2011 was 54  
 Up 5 compared to 12/2010  
 Up 8 compared to 1/2010



The Middle East offshore rig count for 1/2011 was 29  
 Down 2 compared to 12/2010  
 Down 9 compared to 1/2010



# Baker Hughes International Rig Count for January 2011

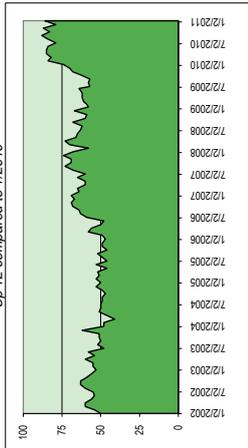
## Total

## Land

## Offshore

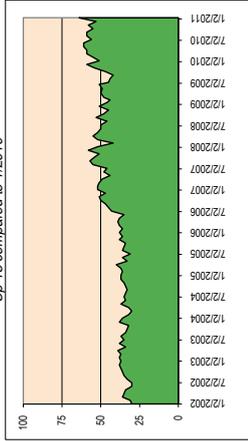
The Africa rig count for 1/2011 was 66

Up 7 compared to 12/2010  
Up 12 compared to 1/2010



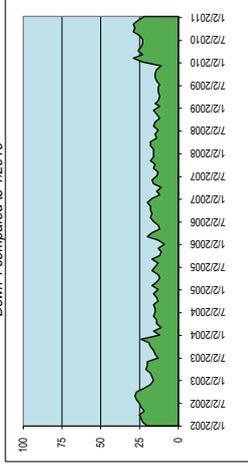
The Africa land rig count for 1/2011 was 64

Up 11 compared to 12/2010  
Up 13 compared to 1/2010



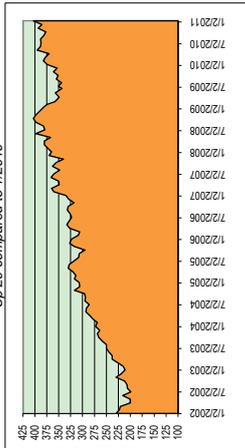
The Africa offshore rig count for 1/2011 was 22

Down 4 compared to 12/2010  
Down 1 compared to 1/2010



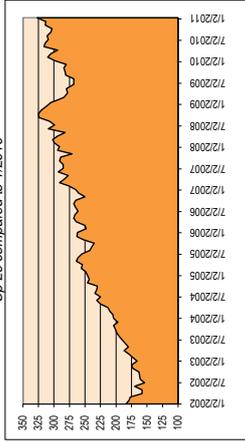
The Latin America rig count for 1/2011 was 403

Up 16 compared to 12/2010  
Up 29 compared to 1/2010



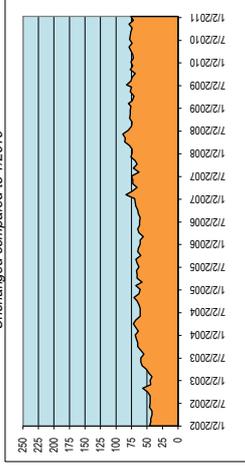
The Latin America land rig count for 1/2011 was 327

Up 14 compared to 12/2010  
Up 29 compared to 1/2010



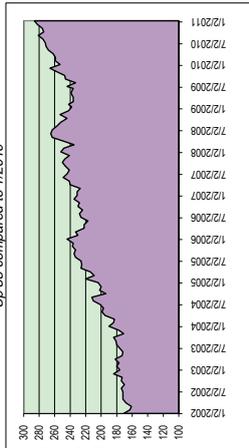
The Latin America offshore rig count for 1/2011 was 76

Up 4 compared to 12/2010  
Unchanged compared to 1/2010



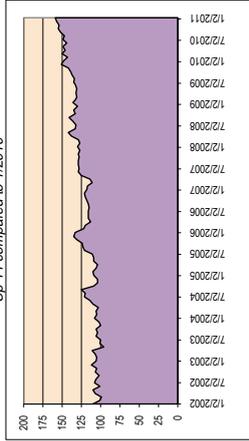
The Asia Pacific rig count for 1/2011 was 286

Up 4 compared to 12/2010  
Up 33 compared to 1/2010



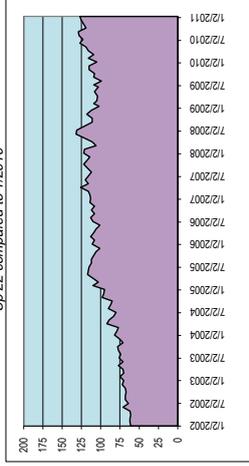
The Asia Pacific land rig count for 1/2011 was 159

Up 2 compared to 12/2010  
Up 11 compared to 1/2010



The Asia Pacific offshore rig count for 1/2011 was 127

Up 2 compared to 12/2010  
Up 22 compared to 1/2010



## ANNEX II

### Major Offshore drilling incidents over the years:

One of the most ancient offshore incidents, occurring in the North-Sea, was the sinking of the *Sea Gem* which was a mobile jack-up platform. On 27 December 1965 this rig left 13 crew members dead and 5 injured. The incident happened whilst the crew began making preparations to move the rig to a new position two miles away in order to drill another step-out well. Whilst the legs were being lowered, two of the eight legs suddenly crumpled. The rig began to tilt sideways and men were thrown out of their bunks whilst others on the upper deck were thrown straight into the icy waters of the North Sea. No distress message had been made as the radio cabin was washed into the sea.<sup>240</sup> Following this incident it was felt that there should be a statutory code backed up by sanctions, which are more effective than the revocation of a license.<sup>241</sup> The UK reacted by enacting the Mineral Workings (Offshore Installations) Act in 1971, six years after the incident.<sup>242</sup> The regulations under the 1971 Act are concerned mainly with protecting those who work on installations, but they are also aimed either directly or indirectly at preventing pollution.<sup>243</sup>

Another major incident in the North Sea was the *Ekofisk Bravo*. On 22 April 1977, it was the location of a blowout and North Sea's biggest oil spill. Due to technical faults and an incorrectly installed down hole safety valve, the well blew-out with an uncontrolled release of oil and gas. The personnel were evacuated without injury via lifeboats and were picked up by a supply vessel.<sup>244</sup> The total oil release estimate amounts to 202,380 barrels. Up to 30 to 40 per cent of the oil was thought to have evaporated after its initial release and the Norwegian Petroleum Directorate reported a total spill estimate between 80,000 barrels and 126,000 barrels. The official inquiry into the blowout determined that human errors were the major factor which led to the mechanical failure of the safety valve. The blowout was significant because it was the first major North Sea oil spill and also because the ignition of the oil and gas was avoided and that there were no fatalities during the evacuation.<sup>245</sup>

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<sup>240</sup> [http://home.versatel.nl/the\\_sims/rig/seagem.htm](http://home.versatel.nl/the_sims/rig/seagem.htm)

<sup>241</sup> Grant, John.P. & Cusine Douglas, J.; *The Impact of Marine Pollution*, Allanheld, Osmon & Co Publishers Inc., USA, 1980, p. 45.

<sup>242</sup> De La Rue, Colin; *op. cit.*, p. 216.

<sup>243</sup> Grant John, P. & Cusine Douglas, J.; *op. cit.*, p. 45.

<sup>244</sup> [http://home.versatel.nl/the\\_sims/rig/ekofiskb.htm](http://home.versatel.nl/the_sims/rig/ekofiskb.htm)

<sup>245</sup> *Ibid.*

The largest oil spill due to a drilling accident was the *Ixtoc I* blow out in 1979, on the Mexican continental shelf in the Gulf of Mexico.<sup>246</sup> The *Sedco 135F* was drilling the *Ixtoc I* well for *Pemex*, the State-owned Mexican petroleum company when the well suffered a blowout. Reports then state that mud circulation was lost, which in essence is used to lubricate the drill bit, so the decision was made to pull the drill string and plug the well. Without the hydrostatic pressure of the mud column, oil and gas were able to flow unrestricted to the surface, which is what happened as the crew were working on the lower part of the drill string. Oil and gas flowed to surface where it ignited and engulfed the *Sedco 135F* in flames. The rig collapsed and sank onto the wellhead area on the seabed, littering the seabed with large debris. The oil slick measured 180Km by 80Km and it is estimated that there were 3.5 million barrels of oil released causing massive contamination of the marine environment. Prevailing winds caused extensive damage along the US coast with the Texas coast suffering the greatest.<sup>247</sup>

Scientists are still studying the long-term effects of the incident and their findings could have important implications for the liability side of offshore operations. The *Ixtoc I* blow-out occurred in a region where oil reserves are found in relatively small pools. Thus if a blow-out cannot be stopped by an emergency response team, it will eventually put itself out by draining the reserve. Other offshore regions, such as the North Sea and the Middle East, are not so blessed, and a large uncontrolled blow-out could cause an enormous environmental disaster.<sup>248</sup>

Yet another well-known oil spill incident caused by offshore activities in the North-Sea region, was the *Alexander L. Kielland*, which was a pentagon-type semi-submersible oil rig and, in 1980, it was located in the *Ekofisk* oil field. This oil rig was supporting the *Edda* rig which was a flotel (floating hotel) for workers accommodation. The workers travelled between the two rigs via a bridge. On 27 March 1980, one of the main horizontal braces supporting one of the five legs of the *Alexander L. Kielland* failed. After the failure of the first brace, the remaining five braces attached to the leg failed in quick succession causing the leg to break off. The rig almost immediately listed to one side at an angle of 35 degrees, partially submerging the main deck and accommodation block.<sup>249</sup> Only two of the seven

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<sup>246</sup> De La Rue, Colin; *op. cit.*, p. 218.

<sup>247</sup> [http://home.versatel.nl/the\\_sims/rig/ixtoc1.htm](http://home.versatel.nl/the_sims/rig/ixtoc1.htm)

<sup>248</sup> De La Rue, Colin; *op. cit.*, p. 218.

<sup>249</sup> [http://home.versatel.nl/the\\_sims/rig/alk.htm](http://home.versatel.nl/the_sims/rig/alk.htm)

lifeboats were launched successfully. Three of the lifeboats were smashed against the rig's legs as result of the storm winds and waves whilst being lowered, leading to a number of casualties. There were 212 men aboard: 123 perished and only 89 survived the accident.<sup>250</sup>

In 1983, the rig was successfully righted and investigated before being towed to Nedstrand Fjord, where the remains of the rig were deliberately sunk. While the official investigation concluded that the leg bracing broke as a result of fatigue in a weld, later evidence was put forward indicating that the rig had been deliberately sabotaged with explosives however no new official inquiry was undertaken.<sup>251</sup> The UK responded to this incident with the Offshore Safety Provisions of the Oil and Gas (Enterprise) Act. Since 1982 these provisions have provided civil law remedies for tortuous conduct of offshore rigs. It is worthy to note that since that time many British drilling units have been regarded as marine vessels when in motion and as 'installations' when on station.<sup>252</sup>

The *Piper Alpha* platform was located about 120 miles northeast of Aberdeen, and the platform initially produced crude oil. In late 1980, gas conversion equipment was installed allowing the facility to produce gas as well as oil. On 6 July 1988, one of the condensate-injection pumps (A) was brought out of service for recalibration and re-certification purposes. During the evening the other pump (B), which was still in service tripped and the nightshift crew decided that pump A should be brought back into service. Once the pump was operational, gas condensate leaked and the gas ignited and exploded, causing fires and damage to other areas with the further release of gas and oil. A second and third major explosions followed resulting in the eventual structural collapse of a significant proportion of the installation. 167 men died as a result of the explosions and fire on board the *Piper Alpha*, including two operators of a Fast Rescue Craft. 62 men survived, mostly by jumping into the sea from the high decks of the platform.<sup>253</sup> This incident, in turn led to the creation of the Offshore Installations (Safety Representatives and Safety Committees) Regulations of 1989.<sup>254</sup>

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<sup>250</sup> Ibid.

<sup>251</sup> Ibid.

<sup>252</sup> De La Rue, Colin; *op. cit.*, p. 216.

<sup>253</sup> [http://home.versatel.nl/the\\_sims/rig/pipera.htm](http://home.versatel.nl/the_sims/rig/pipera.htm)

<sup>254</sup> De La Rue, Colin; *op. cit.*, p. 217.

## **BIBLIOGRAPHY**

### **TEXTBOOKS:**

- Birnie, Patricia & Boyle, Alan; *International Law and the Environment*, 2<sup>nd</sup> Edition, Oxford University Press, 2002.
- Churchill, Robin & Lowe, Vaughan; *The Law of the Sea*, 3<sup>rd</sup> Edition, Juris Publishing, Manchester, UK, 1999.
- CMI, *Handbook of Maritime Conventions*, Vancouver Edition, LexisNexis, 2004.
- De La Rue, Colin; *Liability for damage to the Marine Environment*, Lloyd's of London Press Ltd, 1993.
- De La Rue, Colin & Anderson, Charles B.; *Shipping and the Environment*, 2<sup>nd</sup> Edition, Informa, London, 2009.
- Esmaeli, Hossein; *The Legal Regime of Offshore Oil Rigs in International Law*, Ashgate Dartmouth, 2001.
- Gauci, Gotthard; *Oil Pollution at Sea*, John Wiley & Sons Ltd., 1997.
- Gavouneli, Maria; *Pollution from Offshore Installations*, International Environmental Law and Policy Series, Graham & Trotman/ Martinus Nijhoff, London, 1995.
- Grant, John.P. & Cusine Douglas, J.; *The Impact of Marine Pollution*, Allanheld, Osmon & Co Publishers Inc., USA, 1980.
- Honein, Salah E.; *The International Law relating to Offshore Installations and Artificial Islands*, Lloyd's of London Press Ltd, 1991.
- Lowe, Vaughan & Talmon, Stefan (ed.); *The Legal Order of the Oceans*, Hart Publishing, Oxford & Portland, Oregon, 2009.
- Martínez Gutiérrez, Norman A.; *Limitation of Liability in International Maritime Conventions*, Routledge, London/New York, 2011.
- Sands, Philippe; *Principles of International Environmental Law*, Second Edition, Cambridge University Press, 2004.
- Taverne, Bernard; *Petroleum, Industry and Governments: A study of the Involvement of Industry and Governments in the Production and use of Petroleum*, 2<sup>nd</sup> Edition, Kluwer Law International B.V, Netherlands, 2008.

### **ARTICLES:**

- Balkin, Rosalie; 'The Rise and Rise of IMO's Liability and Compensation Regimes', in T.F. Ndiaye and R. Wolfrum (eds.), *Law of the Sea, Environmental Law and Settlement of Disputes: Liber Amicorum Judge Thomas A. Mensah*, Leiden/Boston: Martinus Nijhoff Publishers, 2007.
- 'Fears on the Horizon', *Fairplay* 2010, 369 (6582).

- ‘Looking beyond the Horizon’, Fairplay 2010, 369 (6582).
- ‘Big Oil’s real concern’, Fairplay 2010, 369 (6596).
- ‘Drill and Spill bill threat looms’, Fairplay 2010, 369 (6596).
- ‘A Black Day, Semi explodes, sinks, 11 crewmen missing, major oil spill in the Gulf of Mexico’, Marine Log 2010, 115 (5).
- ‘Spill fallout: Senator calls for offshore drilling freeze’, Marine Log 2010, 115 (5).
- ‘Moratorium Shuts Down Deepwater’, Marine Log 2010, 115(6).
- ‘Moratorium Threat adds to Pain’, Marine Log 2010, 115 (7).

#### **REPORTS, DOCUMENTS AND LEGAL PAPERS:**

- Document LEG 97/14/1, ‘Proposal to add a new work programme item to address liability and compensation for oil pollution damage resulting from offshore oil exploration and exploitation’, Submitted by Indonesia, 10 September 2010.
- Document LEG 97/15, ‘Report of the Legal Committee on its ninety-seventh session’, 1 December 2010.
- Document LEG 97/WP.1, ‘Preliminary assessment of proposals for new work programme items’, Note by the Chairman, 15 November 2010.
- Document LEG 78/10, ‘Draft Convention on Offshore Mobile Craft’, Report to the Legal Committee from the International Sub-Committee of the CMI, 13 August 1998.
- Document LEG 78/11, ‘Report of the Legal Committee on the work of its seventy-eighth session’, 2 November 1998.
- Document LEG 79/10, ‘Draft Convention on Offshore Mobile Craft’, Submitted by the International Association of Drilling Contractors, 12 February 1999.
- Document LEG 79/11, ‘Report of the Legal Committee on the work of its seventy-ninth session’, 22 April 1999.
- US Presidential Proclamation No 2667, Policy of the United States with Respect to the Natural Resources of the Subsoil and Sea Bed of the Continental Shelf, done at Washington on 28 September 1945.
- Tobin, James; ‘The Implications of the *Deepwater Horizon* oil spill in the Gulf of Mexico’, Library Note for the House of Lords, UK, 13 December 2010.
- Bergen Statement 2010, Ministerial Meeting of the OSPAR Commission, Berge, 23-24 September 2010.
- Report by the National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling, <<http://www.oilspillcommission.gov>>.

## WEBSITES AND ONLINE ARTICLES:

- Agyebeng, Kissi, "Disappearing Acts – Toward a Global Civil Liability Regime for Pollution Damage Resulting from Offshore Oil and Gas Exploration" (2006). *Cornell Law School Graduate Student Papers*. Paper 11. <[http://scholarship.law.cornell.edu/lps\\_papers/11](http://scholarship.law.cornell.edu/lps_papers/11)>.
- Kashubsky, Mikhail; 'Marine Pollution from the Offshore Oil & Gas Industry – review of Major Conventions and Russian Law', Part 1, *Maritime Studies*, November-December 2006, <<http://www.austlii.edu.au/au/journals/MarStudies/2006/31.html>>.
- Luk, Sandy; 'Legal Background Paper: Environmental Regulation of Oil Rigs in EU Waters and Potential Accidents', 22 June 2010, <<http://www.clientearth.org/briefing-environmental-regulation-of-oil-rigs-in-eu-waters-and-potential-accidents>>.
- Raftopoulos, Evangelos; 'Sustainable Governance of Offshore Oil and Gas Development in the Mediterranean: Revitalizing the Dormant Mediterranean Offshore Protocol', 19 August 2010, <<http://www.mepielanebulletin.gr/default.aspx?pid=18&CategoryId=4&ArticleId=29&Article=Sustainable-Governance-of-Offshore-Oil-and-Gas-Development-in-the-Mediterranean:-Revitalizing-the-Dormant-Mediterranean-Offshore-Protocol>>.
- Client Earth, Legislative Briefing, 'Better Regulation essential to avoid *Deepwater Horizon* Europe', 7 September 2010, <<http://www.clientearth.org/better-regulation-essential-to-avoid-deepwater-horizon-europe>>.
- G20 Summit, Proposal by the President of the Russian Federation, <<http://www.rusembassy.ca/node/439>>.
- CMI Newsletter, No.2 of April – September 2010, <<http://www.comitemaritime.org/Newsletters-2010/0,2780,18032,00.html>>.
- CMI Newsletter, No.3 of October – December 2010, <<http://www.comitemaritime.org/Newsletters-2010/0,2780,18032,00.html>>.
- 'BP finally seals leaking Gulf of Mexico oil well', <<http://www.bbc.co.uk/news/11365122>>.
- 'Gulf of Mexico to recover from BP spill by end 2012', <<http://www.bbc.co.uk/news/world-europe-12352051>>.
- 'Gulf's spill effects may not be seen for a decade', <<http://www.bbc.co.uk/news/science-environment-12520630>>.
- 'Pelicans suffer in the Gulf of Mexico oil crisis', <<http://www.bbc.co.uk/news/world-us-canada-10720210>>.
- Statement on the Ministerial Meeting of the OSPAR Commission <<http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/10/449>>.
- Baker Hughes International Rig Count, <[http://investor.shareholder.com/bhi/rig\\_counts/rc\\_index.cfm](http://investor.shareholder.com/bhi/rig_counts/rc_index.cfm)>.

- Rigzone Website, <[http://www.rigzone.com/data/rig\\_report.asp?rpt=reg](http://www.rigzone.com/data/rig_report.asp?rpt=reg)>.
- Oil Rig Disasters Website, <[http://home.versatel.nl/the\\_sims/rig/index.htm](http://home.versatel.nl/the_sims/rig/index.htm)>.