

# International Law on Liability and Compensation in the Offshore Oil & Gas Industry

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**Abstract:** Offshore oil and gas exploration and production comes with risk of release of hydrocarbons in to sea. Today, the probability of such an event is relatively low, but the consequences are nevertheless significant and can cover a vast geographical area. As such, it raises the question as to whether liability and compensation in oil & gas related incidents should be covered under international law. Current international legislation addresses the issue mainly in terms of shipping. This paper attempts to shed light on the topic in relation to oil and gas exploration whilst investigating notable events in the UK and the USA. The findings show that domestic laws of these countries cover the matter sufficiently. However, the question of whether the regulation should fall under international regulation can unfortunately not be answered with confidence as it would require a test-case of a situation where an oil spill affects multiple littoral states.

**Key words:** International law, offshore, oil & gas, liability, Macondo.

## 1. Introduction

Before oil and gas from offshore reservoirs reach a refinery a long and complicated process of exploration and exploitation begins. Firstly, geologists have to have reason to believe there may be fossil fuels present following which a drilling campaign with a MODU (Mobile Offshore Drilling Unit) is performed to ensure there is indeed oil. After this a field development project is established leading to a facility on-site producing the hydrocarbons from one or more wells. For the exploitation of oil and gas, a large number of technical solutions can be utilized to extract the minerals from the wells. In broad terms these can be divided into fixed structures that rest on the seabed and floating structures that stay on location for the duration of the exploitation and transfer the produced minerals via pipelines or shuttle tankers to shore for refinement.

History has shown that MODUs and floating production units are not free of risk. Working with hydrocarbons is inherent to high levels of risk. Release of hydrocarbons can lead to fire and explosions

potentially harming the crew on board and neighboring installations. Release of hydrocarbons in (sea) water is likely to cause harm to sea life and the local economy. With this level of risk, liability and compensation cases in oil & gas related incidents are understandably of significant size. The question of liability and compensation issues in case of disasters appears rather unclear in international legislation as these mainly focus on ships [1].

This paper attempts to address this issue by looking into the aftermath of notable offshore oil and gas disasters. The 1988 Piper Alpha fire is a classic case in UK waters, whereas the blow-out of the Macondo well triggered more recent events in the USA providing useful insight.

## 2. Background

Over 200 years ago, the industrial revolution initiated an ever-increasing demand for fossil fuels such as oil and gas. Initial exploration and production was land-based. In the 1930's exploration and production made the move offshore [2, 3]. At this stage the oil fields were close to land and little question was raised regarding the legalities or sovereignty of the

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shelf and its resources. According to Tanaka [4] the issue of control of offshore natural resources only came up after World War II leading eventually to the establishment of the UNCLOS (United Nations Convention on the Law of the Seas). In Appendix III of UNCLOS'82, the regulations related to exploration and exploitation of minerals are set covering aspects as selection of the contractor to execute the work, the selected technology, the payment terms for the authority and many other details.

Initially the offshore exploration process starts with geologic research covering seismic surveys by means of ships dragging survey equipment behind their vessels whilst sailing over the sites under investigation. These vessels do not attempt to physically reach the hydrocarbons, they only gather data on the exact size and location of the field.

Once operators are sufficiently confident that oil can be found at the site, wildcat drilling with a MOD will be initiated. MODUs that are used for the explorations of oil and gas resources are subject to (among others) the 2009 IMO MODU code that addresses design, construction and operational elements of MODUs. These regulations were put in place to reduce the number of environmental and operational mishaps [5]. When examining the nature of exploration and production, it shows that all drilling and production units have—in one way or another—direct access to hydrocarbon wells (gas and oil), meaning that the potential for major pollution is present. Naturally, oil and gas drilling is executed with a certain series of cautionary parameters against hydrocarbons spilling into the environment. These parameters operate differently when comparing drilling and production. Gudmestad et al. [6] described the principles in great detail, which can be summarized in simple terms as follows:

Drilling is in many cases executed by means of a jack-up, semi-submersible or ship-shaped drilling platform. While drilling the drill-bit is “accompanied” with drilling mud, a heavy slurry of oil- or water-based

chemicals. This mud ensures that the pressure in the well cannot push the oil or gas up alongside the drill-bit and the drill pipe. When a well is abandoned, a plug is cemented such that the well content remains contained. At the seabed, a bBOP (low-out preventer) is placed on top of the well head. This is an advanced piece of technology that can close the well at any given time. In emergency situations, a BOP has shear rams that can cut through the drill pipe and close of the well.

At production phase, the BOP is replaced by a module called a Christmas tree (likely named after the way they used to look) that consists of a number of valves to close the well from the outside world and the cemented plug is drilled open to commence production from the field. From there a piping system runs to the production platform. Valve systems can close this riser to protect the platform from the well, or to close the flow of hydrocarbons in case of mishaps on the production platform. Production platforms have similar owner/operator characteristics compared to ships, it can be chartered to the oil field license holder, or it may be owned by the license holder.

### 3. The Issue of Liability and Compensation

When looking at oil and gas exploration and production maps [7] it can easily be stated that the majority of the offshore oil and gas fields around the world are outside the territorial waters or contiguous zones. These are located on the continental shelf of a littoral state which may be, but is not per definition in the Exclusive Economic Zone of that state. The Exclusive Economic Zone as defined in UNCLOS'82 allows states to claim up to 200 nautical miles from the baseline (UNCLOS'82 art 57), whereas the continental shelf may stretch further depending on the geology (UNCLOS'82 art 76). Under UNCLOS a littoral state may exercise sovereign rights for the exploring and exploiting of natural resources in both areas. However, outside the EEZ, the state may only exercise these rights for the exploration and exploitation of non-living organisms.

UNCLOS'82 art 80 and 81 give the state the right of drilling and production where UNCLOS'82 Art 60 applies "*mutatis mutandis* to artificial islands, installations and structures on the continental shelf". The article states that the coastal state has "exclusive jurisdiction over such artificial islands, installations and structures, including jurisdiction with regard to customs, fiscal, health, safety and immigration laws and regulations".

In shipping, the aspect of liability in case of oil spills is covered in the 1992 International Convention on Civil Liability for Oil Pollution Damage (CLC'92). It specifically addresses ships carrying oil cargo in bulk. The liability of any form of pollution coming from the ship's cargo is for the vessel owner's account with few exceptions (CLC'92 Art 3) which could all be linked to the cause of the pollution having been proven to come from forces out of the control of the crew/owner. The Convention also provides limits as to the level of liability. The International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties of 1969 does not cover liability but does mention compensation, specifically distinguishing ships from exploration and production platforms where the Convention does not apply.

For offshore exploration and production there is no such thing as a ship carrying oil cargo. In many cases, there is very little oil on board the unit: drilling rigs have no capacity to store oil and production platforms either store it, or pass the product via pipelines to storage devices or straight to shore. Exploration and production platforms have little resemblance with ships as these are purpose built floaters or fixed bottom founded structures. Balkin [1] goes to great length to address the issue as to whether these units can be categorised as ships, but does not reach a solution, other than that it needs to be addressed in the maritime sector.

#### 4. United States

On the 20th of April in 2010, whilst drilling the

Macondo well in the Gulf of Mexico, Transocean's *Deepwater Horizon* suffered a blowout, followed by an explosion killing eleven crew members and eventually leading to the loss of the platform and a massive oil spill. A number of key players were involved: The rig and crew were supplied by Transocean, the cement (that failed to close the well) was supplied by Halliburton, the BOP (that also failed to close the well) was supplied by Cameron [8]. The drilling rig was owned and operated by Transocean who flew it under the flag of Marshall Islands at the time of the disaster. BP was the main operator of the field holding a share of 65%, Anadarko held 25% and MOEX Offshore the remaining 10% [9].

With so many different players in a single campaign, addressing the question of liability becomes rather challenging as was proven by the vast amount of law suits being filed in the wake of the spill. Most of the lawsuits were consolidated under Multi-District Litigation docket MDL No. 2179. The Oil Pollution Act USC sec2704(a)(3) sets the limit of liability to all removal cost plus \$75 million for offshore facilities. In this case, the burden of responsibility fell to Transocean as the operator of the vessel, but it was BP that was held ultimately responsible for the operation of the well. In the judgment of 9th of September 2014 [MDL2179], BP was considered to have acted "reckless" and held liable for 67% of the damages, Transocean and Halliburton were considered "negligent" and were held liable for 30% and 3% of the damages respectively.

In the USA the Clean Water Act provides the law with respect to illegal discharge where, in the event of gross negligence, the offender can be subject to a higher amount of fine as defined under U.S.C. sec 1321(b)(7). It is noteworthy that this section states a maximum fine of \$3,000 per spilled barrel, but BP is now subject to a penalty of \$4,300 per barrel following inflation correction which comes in addition to clean-up cost and compensation charges.

Whereas the majority of the cases were settled and

criminal fines, penalties and liability costs were agreed, BP faced a judgment where its actions were considered “gross negligence” and the ultimate fine was based on the associated penalty per barrel. The ruling supporting the claim of gross negligence was based on the level of care not being such that one would expect when drilling a complex well (high temperature, high pressure) in a deepwater field. Following the ruling, BP was fined for the discharge of 3.19 million barrels of oil leading to a civil penalty of \$13.7 billion (MDL 2179). At that stage, BP had already paid \$14 billion in damages and other claims [10]. BP was self-insured covering up to \$700 million, everything in excess of that figure needed to be carried directly by BP [9]

## 5. United Kingdom

In many ways, the offshore oil and gas production industry in the United Kingdom (and arguably world-wide) can be divided by pre and post the Piper Alpha disaster in 1988. The follow up of this event leads to a step-change in policy and law making of the offshore industry. The Piper Alpha production platform was in operation on the UK continental shelf for over a decade when a combination of maintenance work on a pump and a safety valve resulted in hydrocarbon release triggering a series of events eventually leading to the deaths of 167 offshore workers and the loss of a production platform. From the 226 people on the platform, 38 were employed directly by the operator, the remaining 188 were employees of contractors working on a variety of jobs on the platform [11, 12]. At the time of the accident, a number of large maintenance jobs were carried out by different contractors that to varying degrees were linked to the chain of events leading to the disastrous outcome [13]. According to The Guardian [14] the operator paid out a sum of \$100m to the families of the rig workers but no criminal or civil sanctions were put towards the operator.

Following the Piper Alpha disaster an investigation by Lord Cullen concluded that there was the need for a

single regulatory body and that legislation should have a goal-based focus [11]. This conclusion leads *inter alia* to the introduction of the Safety Case Principle where the responsibility of field development lies with the license holder and the responsibility of the operations with the duty holder. This allows for much clearer definition of the liability of the actors involved [15]. The Offshore Installations (Prevention of Fire and Explosion, and Emergency Response) Regulations 1995 was put in place to protect individuals on the installation from fire and explosion and secure effective emergency response. The Offshore Installations (Safety Case) Regulations 1992 S.10 holds the duty holder liable for adhering to the safety case and only allows deviation from the safety case if it can be proven that the particular action was not in the best interest of the on board health and safety or that all due diligence was exercised and all reasonable precautionary measures were taken to follow the safety case.

The littoral countries of the North Sea adopted a Convention for the Protection of the Marine Environment of the North-East Atlantic of 1992 (OSPAR) where the liability for clean-up costs is being put to the polluter. In the UK, the operators of oil fields organized themselves through the OPOL (Offshore Pollution Liability Association Ltd) that has the main purpose of covering the liability of oil pollution up to a value of \$250,000,000 [16]. UK Department of Energy and Climate Change [17] expects all operators on the continental shelf to be member of OPOL. According to Gordon [18] the challenge with OPOL is that there is an outstanding question as to whether third parties have the right to claim as they will not be part of the contract between OPOL and the operator.

Under the Water Resources Act 1991 s.85(6) (for England and Wales) and Control of Pollution Act 1974 s.30F (for Scotland), an offender of polluting controlled waters can be liable to an unlimited fine. In *R v Milford Haven Port Authority* [2000] 2 Cr. App. R. (S.) 423 the Port Authority was fined £750,000 under

WRA s.85 after *Sea Empress* ran aground on Mid-Channel rocks due to a serious navigational control error on the pilot's part. This penalty was in addition to having to cover compensation and clean-up following the spill. Under the Water Resources Act, there is no particular mention of the pollution coming from ships, it could cover the pollution from any installation. However, the definition of "controlled waters" does not cover offshore installations outside a 3-mile limit from the baseline.

In the event of the grounding of *Braer* at the Shetland Islands, civil charges under the Prevention of Oil Pollution act 1971 (the 1971 Act) were brought forward to compensate local habitants and businesses as well as the clean-up cost [19]. The 1971 Act s.3 and s.6 allow for prosecution of offenders spilling hydrocarbons into the sea resulting from oil exploration activities which was the case in *Amoco (UK) Exploration Co v Frame* [2009] JC 65. Also, operators who fail to execute their oil pollution response plan in case of an oil spill can face an unlimited fine under the OPRC Regulations (amended) 2015 reg. 7.

The OPRC Regulations apply to offshore installations that are defined as "a stationary, fixed or mobile facility, or a combination of facilities permanently inter-connected by bridges or other structures, which is (a) in offshore waters; and (b) used for offshore oil and gas operations or in connection with such operations, but only includes mobile offshore drilling units...when they are stationed in offshore waters for drilling, production or other activities associated with offshore oil and gas operations". Although the OPRC seems to refer to merchant shipping law, the definitions clearly identify that offshore exploration and production units fall under its jurisdiction.

## 6. Conclusions

The liability and compensation regulations and laws can be considered sufficient to regulate the offshore

industry in regions of regulated states. The main challenge however, lies with the operators on how to prepare for situations where the damages exceed the levels of coverage from their insurance policies. In the Deepwater Horizon spill, it is clear that within US jurisdiction, the matter of liability and compensation is covered well. BP's self-insurance policy covered for less than 5% of the total value the company was liable to pay. It is not hard to imagine that the UK OPOL coverage of \$250 million could be largely insufficient in the event of a major disaster.

According to UNCLOS Part V art 60 the laws of the state that control the continental shelf apply to installations (and 500 m around these installations). As such the Clean Water Act in the USA and the OPRC Regulations and Prevention of Oil Pollution Act in the UK cover the aspect of liability and compensation rather well.

Having begun from the position of Balkin [1] that one of the main issues lies with the definition of the offshore platform being a ship, it can be concluded that this is not particularly relevant regarding the issue of liability and compensation for exploration and production units on the Continental Shelf. In fact, when looking at the case of *Deepwater Horizon* in the USA and *Amoco* in the UK, this particular aspect was not a matter of discussion in the hearings.

However, Balkin [1] goes further in questioning whether the matter should be part of an international regulator. One cannot answer with confidence as it most likely requires a test-case where a significant oil spill happens on the continental shelf of state with an insufficient legal system affecting the waters or shores of another state. The Montara spill on the Australian Continental Shelf in 2009 cannot be regarded as such a situation as Australia can be considered a regulated state, also the claims that the spill affected Indonesian waters were considered unjustified [20]. Even if international regulations were to cover liability and compensation issues for offshore oil platforms, the problem of states not recognizing these would remain.

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