

Liability for Catastrophic Risk in the Oil and Gas Industry

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Introduction

This article examines the dynamics of recent attempts by operators to negotiate contracts which apportion more liability to contractors in the event of a catastrophic incident. Among the various sources of tension that have arisen in the offshore petroleum industry since the Macondo oil spill, this is probably the most acute. By “operator” is meant the party holding a licence or lease which is responsible for petroleum operations; by “contractor” is meant the party responsible for the provision of services to the operator in relation to say field operation and production (well services, facilities hire and operations and maintenance). The allocation of their respective shares of liability in such events is typically carried out under standard industry contracts which have been established over many years. Until the Macondo oil spill in the Gulf of Mexico in 2010, these standard models of liability allocation have been largely non-contested, and where reviewed before the courts, have been held to be enforceable. Nonetheless, operators in a wide variety of settings have begun to challenge the traditional allocation of liability or imposed changes to the risk allocation. This article also examines the attempt on the part of regulators to shift from a long-held position that regulators look only to the operator/licensee on liability issues to one in which regulators are attempting to hold contractors liable as well. This long-held position stems from the fact that it is the operator which negotiates with the regulators and commits to a certain well design and well programme, and other safety/environmental conditions; it is the operator that acts as the authority for the selection and approval of the various contractors, controls operations of the contractors on the well site and verifies that the results of the work plan have been duly achieved by the contractors.

As a consequence of the private and government litigation arising from the Macondo oil spill and revised perceptions of risk exposure, evidence suggests that operators generally are seeking to modify the established

approach to liability allocation through individual contract negotiations with contractors, and regulators are attempting to hold contractors liable. This has significant and potentially very adverse financial implications for the contractors and for the long term competitiveness and sustainability of the industry. Operators have significant risks, up-front investments and an important long-term financial upside. They can choose to operate through consortia with other operators to share these risks, investments and upside. Service companies (not counting the drilling contractor) on the other hand provide services on a typical well in the UKCS for a duration of anywhere in a range between five and 100 days with typical average contract values of between \$500,000 and \$10,000,000 depending on the services provided.

Traditionally, operators have carried risks via insurance or self-insurance, on the understanding that such risks are counter-balanced by the considerable rewards of E&P success; these occur across the portfolio of the operators’ licences, each with decades of revenue-earning ability, and which the contractor cannot share in. In this way, the risk-reward relationship has structured the liability relationship and related insurance. The risk structure also takes into account the fact that the operators decide the well design/programme and is in charge of the execution of this programme by running the operations at the wellsite. This is of fundamental importance since (a good well design/programme and its subsequent execution is crucial to permit safe drilling or drilling and completion of a well. A good well design/programme also provides for the correct number of barriers which would stop an uncontrolled flow of petroleum from the geological formation to the surface. In running the operations the operator has to continually ensure the integrity of these barriers at each step of the programme. The operator also prescribes and selects from the products and/or services offered by the contractors, and organises and manages the various and often simultaneous and/or inter-relating activities of the various contractors on the rig. It is the operator too which decides at each critical step whether to proceed, stop and modify plans or abandon the well based on actual well conditions encountered. The operator selects the drilling rig and the Blowout Preventer to be used. The well belongs to the operator and an unsuccessful well will usually impact mostly upon the operator; the operator therefore is the party that generally makes all the final decisions on activities that take place on the rig.¹

To better appreciate the traditional risk allocation and why the operator has shouldered the greater part of the risk, some understanding of the inherent technical risks and uncertainties surrounding the drilling and abandonment and/or completion of a well is required. The best technology available today does not guarantee a full or correct understanding of what is expected to be encountered from rock formations exposed through the

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¹ In a situation where well control is at issue, the drilling contractor may take over decision-making with respect to his asset, particularly if it is an offshore rig, not least to ensure the safety of the people on board and to safeguard the asset itself. There may also be a legal duty of care on his part to the personnel on board the rig.

drilling process. Several modifications to the well design/programme are made while drilling to correct for differences between what was expected against what is being encountered.

International petroleum industry practice

The current regime

The established liability regime in global use in respect of pollution offshore emanating from the subsurface or from the well, including control of the well, clean up and third party liability, is the “mutual hold harmless” (MHH) or “knock for knock” indemnities regime. Its broad aim is to identify and mitigate the very substantial risks that the contracting parties face in offshore petroleum operations. In addition to limiting the risk to a level that is acceptable to the parties, the regime enables the parties to avoid having to obtain multiple and overlapping layers of insurance. The regime is incorporated into industry model form services contracts, such as the United Kingdom’s LOGIC contracts² or the US IADC standard contracts.³ The International Marine Contractors Association has also played a role in promoting fairness in risk allocation in service contracts.⁴

Essentially, the operator takes responsibility for loss or damage to the or the property of the operator’s other contractors, personal injury to operators or employees of the operator’s contractors; as well as loss or damage suffered by third parties arising from performance of the contract; including loss or damage arising from the negligence of the indemnified contractor, and loss of or damage to third party production facilities or pipelines.⁵ The operator agrees to hold the contractor harmless from and against any claim arising from pollution and/or contamination “including without limitation such pollution or contamination emanating from the reservoir, and/or from any equipment or property” of the operator (cl.19.3). The contractor takes responsibility for loss or damage to its property, personal injury to its employees arising from performance of the contract and pollution and/or contamination which emanates or originates from its equipment.

Neither party is liable for the other if the personal injury or loss or damage to property concerns a third party and is caused by the negligence or breach of duty by the

other. However, a cap is imposed upon the contractor’s liability to third parties (which is limited to a sum specified in an Appendix to the contract). No such cap is imposed upon the operator.

Typically, there will be a “catastrophe clause”, (as in LOGIC Well Services Model Contract cl.19.9, and BP’s Global Model Well Services Contract, in almost identical terms).⁶ This provides that the operator shall save, indemnify, defend and hold harmless the contractor against all claims, losses, damages, costs, expenses and liabilities that result from loss or damage to any well or hole, blowout, fire, explosion, “cratering” or any other uncontrolled well condition and reservoir damage or loss of oil or gas from this source, regardless of cause.

The enduring popularity of the above regime lies in the business benefits it brings such as the reduced costs of litigation and insurance to the parties concerned. It does, however, rely very much upon the creditworthiness of the parties. A catastrophic incident raises the possibility of a breakdown in this respect, and thereby strengthens the parties’ interest in ensuring each other’s creditworthiness and also raises the issue of whether collateral support should be provided. On the face of it, this is not relevant to the contractor. However, in operating environments such as the North Sea, where there are many small to medium sized companies as parties to a petroleum licence, there is a clear public interest in ensuring that this is anticipated and provided for. Measures to address this would require at least some consultation with a variety of stakeholders including contractors.

In the United States, the situation is broadly similar. The model contracts used by the International Association of Drilling Contractors (IADC) for offshore drilling expressly provide for indemnity despite gross negligence (Offshore Daywork Drilling Contract art.911(a)). Indemnification obligations that include allegations of gross negligence are a normal industry practice in the United States. Exclusion clauses are permitted, as the model JOA of the American Association of Professional Landmen shows. It reflects an operators’ industry standard of allocating liability in proportion to participating interest shares in the JOA unless the liability arises from gross negligence or willful misconduct, in which case that party is solely responsible. Gross negligence can be excluded from the scope of the indemnity agreement if the operator

² LOGIC General Conditions of Contract for Well Services at www.logic-oil.com [Accessed August 8, 2012]: “the Company shall save, indemnify, defend and hold harmless the Contractor from and against any claim of whatsoever nature arising from pollution and/or contamination including without limitation such pollution or contamination emanating from the reservoir and/or from any equipment or property of the Company or Contractor arising from or related to the contract” (cl.19.3); in cl.19.11: “All exclusions and indemnities ... given under this clause ... shall apply irrespective of cause and notwithstanding the negligence or breach of duty (whether statutory or otherwise) of the indemnified party or any other entity or party and shall apply irrespective of any claim in tort, under contract or otherwise in law.”

³ The International Association of Drilling Contractors produces a number of standard form drilling contracts such as the International Day Work Drilling Contract, available at: <https://store.iadc.org> [Accessed August 8, 2012].

⁴ See www.imca-int.com [Accessed August 8, 2012].

⁵ Clause 19.2.

⁶ Clause 19.6 of the BP Model on “Other Company Responsibilities” reads as follows:

“Subject to Clauses 19.1 and 19.4(b), but notwithstanding anything contained elsewhere in the CONTRACT to the contrary, COMPANY shall save, indemnify, release, defend and hold harmless CONTRACTOR GROUP against all claims, losses, damages, costs (including legal costs) expenses and liabilities resulting from:

(a) loss or damage to any well or hole (including the cost to re-drill);
 (b) blowout, fire, explosion, cratering or any uncontrolled well condition (including the costs to control a wild well and the removal of debris);
 (c) damage to any reservoir, aquifer, geological formation or underground strata or the loss of oil or gas therefrom;
 (d) the use of radioactive sources in relation to the WORK or any contamination resulting therefrom (including retrieval and/or containment, clean up and/or containment of contamination from naturally occurring radioactive materials).”

(BP Global Model Well Services Contract (Rev.4), Section 2: General Conditions of Contract, February 2006.)

wishes. In the JOA for the Macondo project in the Gulf of Mexico, BP did this vis-à-vis its partners, MOEX and Anadarko.

The Macondo challenge

The established regime, as outlined above, was challenged in the litigation following the Deepwater Horizon accident.⁷ The operator, BP, attempted to argue that its contractual indemnities did not stand, and that some of the liability should therefore be shared with the drilling company, Transocean and its cementing and mud logging contractor, Halliburton. The arguments made by both Transocean and Halliburton in rebuttal of BP's claim are relevant to the issues in this paper. It argued that the contract concluded between Transocean and BP and between Halliburton and BP was clear about the indemnification of contractors irrespective of gross negligence and was very much one that was standard in the international petroleum industry. It reinforces much of the analysis in the preceding section.

BP used a contract for services which contained standard industry reciprocal indemnity language.⁸ This was effectively a global template. The two parties agreed or promised to indemnify each other "without limit and without regard to the cause or causes" of the incident, including negligence "whether such negligence be sole, joint or concurrent, active, passive or gross".⁹ In this respect, personal injury claims by the contractor's employees against the operator had to be defended and indemnified by the contractor. The contract included express provision for indemnity for fines and penalties. In the event of environmental pollution, BP undertook to indemnify Transocean for any and all pollution obligations, including any "loss, damage, expense, claim, fine, penalty, demand or liability".

Contracts such as these were upheld by Judge Barbier in the Federal US Court in New Orleans.¹⁰ In a case brought by Transocean, he held in January 2012 that BP must indemnify Transocean for some of the compensatory damage claims over the Macondo oil spill. He held that Transocean was not responsible for compensatory damage claims raised by third parties for oil spilled below the ocean surface even if attributable to negligence, gross negligence or strict liability. In art.24.2 of the contract, the "reciprocal" application and scope of the indemnities in the contract as a whole, the equal bargaining strength of the contracting parties and the fact that the indemnity did not operate to leave an "injured party" without recourse, were cited as reasons supporting the court's view that the indemnity would extend to Transocean's gross negligence. However, the indemnity did not extend to punitive damages for which Transocean may be liable.

The aim of punitive damages was to punish the wrongdoer and discourage future similar behaviour. Such a principle would be undermined if the burden could be shifted by contractual indemnity. The indemnity did not extend to civil penalties imposed by the US Government under the federal Clean Water Act. Its main goal was to deter future pollution through suitable punishment of offenders. In practice, such damages could amount to several billion dollars. A few days later, the same judge delivered a similar judgment in a case involving Halliburton, in which the reasoning in the Transocean case was relied upon. In effect, the idea that the operator may in the event of a catastrophic accident rely upon the service company to bear some of the costs was firmly rejected. However, the service industry was shaken by the position taken by Judge Barbier on fines and penalties. Before Macondo, it was assumed that regulators would only go after an operator in seeking damages, not a service company even if some applicable laws did not exclude such recourses against contractors.

The arguments leading to this judgment contain noteworthy points about the allocation of liability under this contract. BP was (and is) a large, internationally operating company, with considerable international experience of such operations and contract practices around the world. It was represented by a legal team which would have knowledge of existing case law and would have been able to argue for the exclusion of gross negligence from any indemnity provisions if it had wished to do so. The aim of the indemnity agreement is to allocate risk and quantify liability in a meaningful way: in some parts, the parties have excepted gross negligence while in others they have not. In some parts of the contract, the parties have limited the indemnity obligations to a certain amount, but in other parts they have not. In certain industry-accepted areas the risks have been transferred to the party best in control of and best able to sustain the risk. In this case, that is BP, which is significantly larger than any other Macondo contractor, as are its rewards and risks. BP was in the best position to eliminate or at least to mitigate the risks since it was the owner and controlled the development of the Macondo project.

Another aspect of the contract is revealing about the balance which is typically obtained in such contracts. It does not seek to exonerate either party from certain of the financial consequences of a catastrophe such as the blowout of the Macondo well. For example, the contractor undertook to defend claims and pay for injury or death of its employees and for pollution emanating from the rig and above the water surface; and further, to indemnify BP for loss or damage to third parties caused by the

⁷ *In Re: Oil Spill by the Oil Rig "Deepwater Horizon" in the Gulf of Mexico, on April 20, 2010: Memorandum in Support of Transocean's Motion for Partial Summary Judgment against BP to Enforce BP's Contractual Obligations, including BP's Obligation to Defend, Indemnify and Hold Transocean Harmless against Pollution Claims* November 1, 2011 United States District Court, Eastern District of Louisiana.

⁸ The drilling contract is publicly available at: http://www.sec.gov/Archives/edgar/data/1451505/000145150510000069/exhibit10_1.pdf [Accessed August 8, 2012]. It was originally concluded between Vastar and Reading & Bates, predecessors to BP and Transocean respectively. It is 409pp., reflecting many changes made over its life. The contract with Halliburton is also publicly available on Halliburton's website.

⁹ Clause 25.1.

¹⁰ *Transocean/Halliburton* rulings November 2011/January 2012 US District Ct E District of Louisiana.

drilling unit while off location or underway with a financial ceiling fixed for such occurrences. The contractor also accepted liability and agreed to indemnify BP for loss or damage to the drilling unit. All of the contractors made efforts to insure their risks in the public insurance market, but BP chose not to insure its own risks. This industry allocation agreement contained language that is standard all over the world and withstood the test of time. Both the operator and contractor involved in the Macondo project entered into similar agreements with other parties both before and after the one they entered into for this project (and indeed subsequently with each other).

Clearly, there is a public interest aspect in ensuring that the risk allocation between the operator and contractor(s) is one that is properly provided for. This is particularly evident with respect to safety. If the risk is transferred to the operator, this does not lead to compromise on safety issues. After all, it is the operator that has control over all information and decision-making relating to the well and associated risks, and is responsible to the government for compliance with its regulatory requirements. Indeed, there is an information asymmetry at work here: the contractor does not have sufficient knowledge of the operations to be in a position to evaluate all of the risks. Furthermore, the various tests that are carried out to verify the well integrity throughout the drilling process are done by the operator or performed under its direct control.

Prior to the Macondo incident, the regulators have traditionally only pursued the operator for non-compliance with safety regulations, breach of permit terms or damage to the environment or damage to resources. However, in the case of Macondo and the recent cases in Brazil, the regulators have also pursued contractors in addition to the operator. These actions in pursuit of contractors seeking to impose substantial fines and penalties demonstrate a lack of understanding of the operational interaction between an operator and the operator's various contractors. Since in some jurisdictions (as in the United States), the risks of fines and penalties cannot be indemnified on the grounds of public policy, this leads to a very troubling disruption to the traditional risk allocations. Arguably, it puts at risk the long-term sustainability of the industry.

The contractual practice of knock for knock indemnities has been reviewed by the English courts. In a number of cases they have examined the meaning of key concepts such as "negligence", "gross negligence" and "willful misconduct" in the context of the enforcement of liabilities. Their starting point is that a party to a contract is unlikely to intend to absolve another party entirely from the consequences of the latter party's negligence. It is therefore important to provide an indemnity that expressly

covers liability in negligence. In *Orbit Valve*¹¹ and *London Bridge*¹² the contractor's liability arising from negligence had to be clearly provided for in the indemnity clause or would not be so construed. In the *London Bridge* case, the House of Lords noted that the indemnity said nothing about the contractors having to be liable to their employees in order for the indemnity to operate and that it imposed a general liability to indemnify with an exception only in cases where the accident was attributable to the sole negligence or willful misconduct of the operator. In a later case, *Westerngeco*, the court had little difficulty in upholding indemnity provisions which were clearly worded and in which the parties had made express provision for the allocation of liability. The concept of "gross negligence" is sometimes encountered in JOAs but has received little judicial interest from the English courts, with a judge in a recent case describing it as amounting to "little more in practice than simple negligence".¹³

In spite of the foregoing, it should be noted that the wording of indemnity clauses is notoriously uncertain with respect to their enforceability. Insurance can also be inadequate or even non-existent. The result is that substantial residual liability can rest with the contractor. The insurance market post-Macondo appears to be nervous about perceived contractor liability risk (especially for gross negligence), and capacity is below \$1 billion and increasingly expensive. Insurance also carries general exclusions for catastrophic risks from the well, such as blowout and pollution which are traditionally viewed as operator risks which have been indemnified to the contractor.

In practice, the oil and gas industry has what is essentially a global template for the allocation of liability, evident in much of the standard documentation in the industry, such as we find in LOGIC and IADC standard contracts. Many internationally operating oil companies have Master Services Agreements with contractors which can often be global in character. The principal exception to this is the practices of the National Oil Companies (NOCs). This template provides a balance between risk and reward and the "command and control" realities. However, as mentioned above, recent regulatory actions against contractors are throwing this balance substantially off.

Another issue that has arisen from the post-Macondo litigation is the impact of a country's environmental laws on industry's exposure. Both Halliburton and Transocean were deemed to be in breach of US environmental laws, which cannot be indemnified by BP, the operator (in the view of Judge Barbier). The assumption in the past was that the operator would always pay for any such costs. This raises a potentially serious problem, since many countries have diverse environmental laws which allow

¹¹ *EE Caledonia Ltd (formerly Occidental Petroleum (Caledonia) Ltd) v Orbit Valve Co Europe Plc* [1994] 1 W.L.R. 221; [1993] 2 Lloyd's Rep. 418 QBD (Commercial Court).

¹² *R. (on the application of Zeqiri) v Secretary of State for the Home Department* [2002] UKHL 3; [2002] Imm. A.R. 296.

¹³ *Sucden Financial Ltd (formerly Sucden (UK) Ltd) v Fluxo-Cane Overseas Ltd* [2010] EWHC 2133; [2010] 2 C.L.C. 216. In *Hellespont Ardent*, Mance J. stated that it was "clearly intended to represent something more fundamental than failure to exercise proper skill and/or care constituting negligence": *Red Sea Tankers Ltd v Papachristidis (The Hellespont Ardent)* [1997] 2 Lloyd's Rep 547 QBD (Commercial Court).

them to impose penalties upon a “polluter”. For the offshore oil and gas industry, this may include a legal power to impose a tax or levy on production to pay for possible future environmental damage. Should such a power be exercised, the effect would be to impose a double penalty on the offshore industry as it pays a premium for carrying out the offshore activities, irrespective of any failure to observe environmental laws, and then has the risk of being fined again in the event of actual environmental damage occurring.

The international legal regime

There is no international legal framework in place to deal with the question of liability arising from pollution in the event of pollution following a blowout. Studies of international law that address environmental pollution are usually concerned with oil pollution from tankers.¹⁴ As a result of this lacuna, it is left to national laws to deal with this matter. Such laws vary enormously both in the way that the law itself deals with it and with the way contractual indemnities are interpreted and enforced, or not as the case may be.

There is a regional, NW European Convention relevant to this subject. The Offshore Pollution Liability Agreement (OPOL) was set up in 1975 as a short term measure and an alternative to a 1976 international convention that never came into effect. Inter-governmental negotiations failed to establish and agree the limits to be placed on liability. In 1981 OPOL was amended to continue indefinitely and the liability limits were increased. The UK Government subsequently accepted OPOL as the best vehicle for addressing liability issues and has been positive to date about its requirements for the availability of funds for pollution damage as laid down in its licence conditions.

The Agreement requires each operator to accept strict liability, with a few exceptions, for pollution damage, and for the cost of remedial measures incurred from a spill from its offshore facilities up to a maximum of US \$250 million per incident. OPOL requires that all claims have to be lodged against the operator who has caused the pollution and that the operator is solely responsible for meeting these claims. In the event that an operator defaults, OPOL provides for a mutual guarantee from all its other members that claims up to US \$250 million will be settled. It applies to offshore operators only, the majority of which are UK-based. Although European in focus, it does not apply to the Baltic or Mediterranean

seas, in which deepwater drilling is a prospect. Moreover, the scale of the costs arising from Macondo raises the question of whether the limit of US \$250 million is anywhere near sufficient to address a catastrophic oil spill.

OPOL applies to all offshore facilities from which there is a risk of a discharge causing pollution damage. It is *not* a fund nor is it a limitation of liability regime. The operator may be liable for losses which exceed the maximum recoverable under OPOL or those that go beyond the scope of OPOL. OPOL acts as a back-up to the individual company’s own insurance provision if that proves insufficient to address compensation claims arising from offshore pollution incidents from E&P facilities. The scheme is a strict liability compensation one with no need for proof of fault. Payment is to be rapid and there is no need for legal action. It is also secure: members must provide evidence of financial responsibility plus OPOL members give mutual guarantee of each other’s obligations. There are two categories of claims: reimbursement of public authorities for remedial measures and compensation to third parties for pollution damage.

Within the *national* frameworks, the use of OPOL varies in Europe. In the United Kingdom, for example, the relevant government department for offshore regulatory matters, DECC, requires all operators to have signed up to OPOL and to demonstrate evidence of financial responsibility by providing evidence of insurance. However, on the UKCS an operator is liable for oil spills under tort and statute as well as the OPOL scheme.¹⁵

Insurance

Most JOAs require the operator to take out insurance for joint operations. Partners can join in the operator’s insurance or take out their own. Some larger oil companies do not insure with the market. Usually, an operator will maintain various insurances relevant to blowout, including third party legal liability and control of wells, re-drill and clean up of sudden and accidental pollution from a well out of control. For contractors, nearly all contractual liability insurance excludes blowout or subsurface pollution or below wellhead risk.¹⁶ Generally, the insurance community does not expect that contractors will take such risks, nor does it cater for such eventualities in respect of contractor liability. In short, insurance capacity is inadequate and is not offered to contractors for what is viewed as an operators’ risk. It

¹⁴ Wang Hui, *Civil Liability for Marine Oil Pollution Damage: Comparative Economic Study of the International, US and China Compensation Regimes* (Kluwer Law International, 2011); XIA Chen, *Limitation of Liability for Maritime Claims: A study of US Law, Chinese law and International Conventions* (2001).

¹⁵ Tort: *there is no limit on liability: the well owner is liable for all costs provided damage is reasonably foreseeable (that is, not too remote)*, but pure economic loss is generally *not recoverable (there must be damage to property or person in order to be able to claim economic loss)*. Legislation: the key piece of legislation is the Environmental Damage (Prevention and Remediation) Regulations 2009: it implements the European Union’s Environmental Liability Directive; it applies only to onshore and in territorial waters up to 12 miles out; it may require remediation/prevention measures in relation to protected species/habitats or a SSSI; DECC can act in emergency if the operator fails to comply and recover its (i.e. DECC’s) costs from the operator; no damages are available for third parties affected under the ELD regime; no mandatory insurance requirement currently exists.

¹⁶ The only insurance that is available for blowout is Operators’ Extra Expense (OEE) insurance which, as the name suggests, is designed for operators. The only time a drilling contractor would procure OEE is when drilling is carried out on a turnkey basis. For non-drilling contractors (cementing/logging/drilling fluids/casing etc), OEE is not available as it is designed for drilling and priced per foot drilled. This is not taken out by most contractors as the premiums are prohibitive and only low insured limits are available, the maximum capacity post-Macondo being in the region of \$500 million and that would have to cover control of well, re-drill and pollution clean-up. Obviously, this limit is woefully inadequate in a Macondo-type scenario or any major blowout spill in any case.

should also be noted that proposals by some insurance brokers and major insurers in 2010 to create a \$10 billion insurance product for catastrophic oilfield (Macondo-type) risks have not materialised, due to the lack of any regulatory requirement (such as, for example, a requirement in the United States to increase OPA limits to \$10 billion). Major reasons for this have been a concern that such a very high limit would only become a target for governments and lawyers, and the lack of any viable pricing mechanism.

In the US regime, the principal national rules are contained in the the Oil Pollution Act of 1990 (OPA), a statute adopted in response to the Exxon Valdez oil spill. Prior to OPA liability was limited to the value of the vessel in most cases. The OPA regime applies to the whole of the exclusive economic zone, not only territorial waters. There is no need to show fault; strict liability applies. It authorised the use of money and collection of revenue for the Oil Spill Liability Trust Fund, designed to ensure a rapid and effective response to oil spills. This stands at US \$2.4 billion. The OPA rules on compensation and liability cover the loss of natural resources, removal and clean up costs, property damage, loss of profits/earning capacity, loss of government revenue or increased public services costs. OPA includes liability caps that vary according to the type of spill and type of damage caused. A liability cap is applied to offshore licensees at US \$75 million a spill, plus removal costs. In the Macondo project, BP waived the US \$75 million OPA cap. There is no cap if gross negligence or willful misconduct or a violation of some regulations.

In addition, each state has its own environmental legislation with provision for damages. Tort claims may be made under state and federal law. The Clean Water Act permits a government to seek fines on a per barrel basis which can increase if a judge finds that the company has been grossly negligent in allowing the pollution to occur. In BP's case, this may lead to billions of dollars of liability.

Gaps in the regime and their significance

From the previous section, it should be clear that a major problem is the lack of any consistent national legislation in this field or an international convention that would guide or even require operators to adhere to the established industry practice. Further, there is a question as to which regulations imposing fines and penalties apply exclusively to operators or to contractors as well. The result is that contractors could be heavily and perhaps fatally exposed in a situation for which they have no ability to fully mitigate the risk and over which they have not enjoyed full operational control and decision-making powers.

The significance of this legal lacuna has increased since the Macondo oil spill. The magnitude of the spill has deeply shaken the international oil industry's assumptions about the risk of a catastrophe occurring and for which governments will hold the industry responsible. It has also had an important effect upon its expectations of litigation. Post-Macondo developments have upset the risk-reward expectations of both the operator and the contractors. They have failed to recognise the "command and control" structures which have been described in this article as shaping the traditional approach to liability.

Indeed, such perceptions of risk are far from being unfounded. There have been a number of oil spills in 2011 which have contributed further to the public and industry perceptions that oil spills are foreseeable and that this is not a hypothetical situation, but rather a serious problem that requires a review of existing structures. Apart from the official responses in 2011–2012 to an earlier spill (in August 2009) in Montara, Australia, there were oil spills and gas leaks in the following offshore locations:

- **August 2011:**
Shell found a leak at the Gannet Alpha platform in the UK North Sea; this is the worst in a decade (1,300 barrels of oil);
- **October 2011, New Zealand:**
leakage from a stranded cargo ship;
- **November 2011:**
Chevron leakage offshore Brazil of less than 3,000 barrels of oil from the Frade field offshore Rio de Janeiro;
- **December 2011:**
a leak at the Bonga offshore oil field was the largest in Nigeria since 1998, although the amount was less than 40,000 barrels from Shell's facility (a five-year-old loading line);
- **March 2012:**
a gas leak from Total's Elgin field in the UK North Sea;
- **April 2012:**
Russian environment ministry takes legal action against TNK-BP for alleged multiple oil spills in Siberian river basins.

As the available data makes clear,¹⁷ there have been many oil spills in the recent history of the international oil industry. The probability that more will occur is therefore very high. It may be noted, however, that assessments of

¹⁷ http://en.wikipedia.org/wiki/List_of_oil_spills [Accessed August 8, 2012]. Of course, a significant number of these are spills from onshore pipelines or ships, neither of which are the focus of this article. For other examples, see <http://www.reuters.com/article/2011/12/23/us-shell-nigeria-leak-idUSTRE7BM1BZ20111223>; <http://www.bbc.co.uk/news/world-latin-america-16298344>; <http://www.bbc.co.uk/news/world-latin-america-16324446>; <http://www.bloomberg.com/news/2011-12-15/chevron-s-oil-spill-in-brazil-prompts-10-6-billion-lawsuit.html>; <http://www.guardian.co.uk/world/2010/may/30/oil-spills-nigeria-niger-delta-shell> [Accessed August 8, 2012].

risk vary, with the European Union, for example, predicting a much higher level of risk than the oil industry considers accurate.¹⁸

The BP litigation has ensured that the Macondo incident remains in the media spotlight. There has been a vast amount of litigation as a result. Many oil and gas jurisdictions are now reviewing contractual exclusion clauses, liabilities and indemnities, definitions of “gross negligence” and willful misconduct, as well as other contractual terms such as those relating to insurance, choice of law and jurisdiction.¹⁹ As noted above, several leading international oil industry contractors are involved in litigation with BP over liability for the oil spill and its effects. Litigation has also begun in Brazil with two US \$10.6 billion and US \$10.9 billion civil lawsuits filed against Chevron and the rig operator, Transocean, over a spill from its offshore *Frade* oilfield. Heavy fines have been imposed by the regulatory agency, and a criminal lawsuit has also been filed against the two companies. The reaction is out of proportion to the size of the spill, which is one-thousandth the size of the Macondo spill, and the very limited character of the damage (no oil reaching the coastline; no evidence of environmental damage).

An important contrast with the Macondo oil spill and its legal consequences can be found in many of the oil industry’s operating environments. In that context, the pivotal role of BP, a well established and large, highly successful oil company, can distract from an important fact of life. The international oil industry is now populated with a combination of Big Oil companies such as BP and ExxonMobil, medium to large oil companies such as Anadarko and many NOCs, and numerous “new entrant” companies, including service companies, which certainly do not have the access to capital to pay the kind of large claims which BP faced following the Macondo oil spill. In the event that the operator fails, it is clear that contractors will be exposed to claims for payment, especially large contractors. Even if the operator does not fail, contractors may be faced with prohibitive amounts of regulatory fines.

An example of this is provided by the UK North Sea, where the corporate profile of licensees is diverse, and includes several small to medium sized companies as operators. The risk of a default in the face of substantial payments has already been considered in relation to the development of the decommissioning regime, with at least one known default having taken place already. The possibility that non-operators might be held liable in such circumstances is not far-fetched in such contexts.

Outside of the OECD area, there are three additional and very important considerations. First of all, the existence of NOCs in most countries and the use of PSC and service contract arrangements have implications for

the allocation of liability. It is far from clear that NOCs would accept the kind of liability which BP has in the event of even a more modest oil spill than Macondo. Essentially, NOCs are very different from internationally operating companies and their accountability for oil spills of this nature has yet to be tested. Their bargaining power vis-à-vis contractors in certain countries, is such that they may assume they can impose whatever conditions they wish. Moreover, in some countries such as Russia and China there are service contractors that are part of vertically integrated NOCs, in contrast to IOCs elsewhere which do not usually have a service affiliate. How such a model will be affected by these trends is not clear. This underlines the fact that there are different kinds of operators: some are international oil companies and others are national one companies; some are large companies, some medium and others small. The capacity of operators to pay for catastrophic risk will therefore vary. Secondly, local law requirements are such that exclusions of liability are unlikely to be upheld. In some regimes such as Brazil or Indonesia, local law will not allow the enforcement of indemnity provisions such as are currently used. Contractors would therefore be liable under local law in the event of negligence. Similar problems can be expected in countries such as Russia and Argentina. Finally, an important problem in many cases is a lack of capacity in ministries that will have responsibility for oil spill prevention and response. Ghana, for example, has a National Oil Spill Contingency Plan (and already has had an oil spill offshore), but the country’s legal regime does not clearly define the roles and responsibilities of the various stakeholders; it lacks the relevant bodies to complement the activities of the environmental authorities in addressing oil pollution; it is vague in its requirements on the funding of equipment to combat oil spills, and has only general plans on the training of personnel.

Stakeholder responses

The experience of contractors after the Macondo incident is that operators are seeking to negotiate contract terms to make contractors liable for subsurface pollution offshore from the well, including control of the well, clean up and third party liability, where contractors are negligent or grossly negligent. The difficulty for contractors is that pollution from the well is normally excluded under the contractor’s liability policies. The contractors do not select or make decisions on the well design/programme, the tests conducted throughout the execution of the programme to ensure that well integrity is being maintained or the blowout preventer, all of which are critical primary risk mitigation measures.

The lead response in the United Kingdom and the United States has been taken by the respective government agencies in close cooperation with the

¹⁸ Oil & Gas UK, *European Commission Proposed Regulation on Offshore Safety and Related Issues, Oil and Gas UK Position Paper* (January 2012).

¹⁹ In the United States, there is a growing body of academic commentary on the issues in relation to federal and state law. Some of the notable contributions include: Vincent J. Foley, “Post Deep Water Horizon: The Changing Landscape of Liability for Oil Pollution in the United States” (2010/2011) 74 *Alb. L. Rev.* 515; Ronan Perry, “Deep Water Horizon Spill and the Limits of Civil Liability” (2011) 86 *Washington Law Review* 1; Robert Force et al., “Deep water Horizon: Removal costs, civil damages, crimes, civil penalties and state remedies in oil spill cases” (2010–2011) 85 *Tul. L. Review* 889.

relevant industry associations. In this respect some comments may be made about the UK response, but such government activism is typical of what is going on in various countries. However, it was not only in the United Kingdom that there was a robust engagement by the industry: the Global Industry Response Group (GIRG) was formed by the OGP in 2010. It interacted with the IRF and issued its first report in May 2011.²⁰ This suggests that the way forward will involve engagement with the various industry associations that already have a stake in this debate.

OSPRAG

In the United Kingdom the Oil Spill Prevention and Response Advisory Group (OSPRAG) was established in May 2010 to provide a focal point for a review of industry practices following the Macondo incident. This was a joint government-industry body which reviewed regulation and arrangements for oil spill prevention and response and the adequacy of financial provisions in relation to a UCS response. Indemnities and insurance were matters which OSPRAG specifically looked at, in contrast to the US National Commission or the House of Commons,²¹ which did not examine the wording of such clauses. The committee recommended the creation of an Oil Spill Response Forum to be governed by the Oil & Gas UK. Its final report also noted that a consequence of the Gulf of Mexico oil spill in 2010 has been

“heightened interest in the preparedness of the industry in the UK to respond to a major incident offshore from the UK government, the industry regulator and licensing authority (DECC), the media and the public at large”.²²

Its other principal recommendation was the development of the OSPRAG capping device, designed specifically for the harsh conditions on the UKCS, and was developed in only seven months as a major technical breakthrough.

Both the US National Commission on the BP Deepwater Horizon Oil Spill and the UK House of Commons Energy & Climate Change Select Committee (HC Committee) made recommendations in relation to the liabilities and compensation costs that can arise from oil spills.²³ These concerned among other things the OPOL limit and coverage, but also clarity on liability and the ability to pay for an accident. The OPOL limit was substantially increased from US \$120 million to US \$250 million in August 2010.

The HC Committee doubted if the new US \$250 million limit was sufficient to cover costs of a blowout on the UKCS.²⁴ They were concerned that the OPOL provisions only cover direct damage and that the precise definition of this is unclear:

“We believe that this lack of legal control [OPOL membership is voluntary] will allow polluters to claim that damages to biodiversity and ecosystems are indirect, and therefore do not qualify for compensation.”

It also advised that licensees should be required to prove ability to pay for blowouts, and that compulsory insurance should be considered by the Government for small E&P companies.

In the United States a review was carried out of the OPA. Calls were made for the liability cap in the OPA to be raised. Prior to this such caps were not publicised. It is questionable whether such caps can now be relied upon. Further, OPA is not the only regulation the US authorities can pursue. The Clean Water Act would apply as would the Alternative Minimum Fines Act. An indication of the new context post-Macondo was given by the US Bureau of Safety and Environmental Enforcement which approved Shell’s oil spill response plan for the Chukchi Sea in Alaska in February 2012 only on the following conditions: Shell had to prepare for a worst case discharge of nearly five times that of its previous plan; to include planning for adverse weather conditions and to develop special equipment and strategies which could respond to a loss of well control and a spill.²⁵

Insurance

The likelihood that insurance premiums for contractors would increase or that similar actions would be taken by the insurance industry has grown. Moody’s Investor Service announced in June 2010 that insurance charges had increased by as much as 50 per cent since the Macondo incident. The House of Commons *Report on UK Deepwater Drilling* (2011) recommended that the Government consider whether compulsory third party insurance should become a necessary requirement for small exploration and production companies. Currently, that is not a requirement. The industry association, Oil & Gas UK, also stated in its independent report of December 2011 that:

“The Panel recommends that liability and insurance issues should be taken forward as a matter of urgency by OGUK and a clear claims and compensation procedure adopted by all operators in the UKCS, taking into account the evaluation that

²⁰ See www.ogp.org.uk [Accessed August 8, 2012].

²¹ UK House of Commons, Energy and Climate Change Committee, *UK Deepwater Drilling: Implications of the Gulf of Mexico Oil Spill* (HM Stationery Office, 2011) (Second Report of Session 2010–2011), Vol.I, report together with formal minutes, oral and written evidence.

²² UK Oil Spill Prevention and Response Advisory Group, *Strengthening UK Prevention and Response: Final Report* (September 2011), p.33.

²³ See also, UK Department of Energy and Climate Change, *Oil & Gas Regulatory Review: Consideration of The Findings From Investigations Into The Deepwater Horizon Incident* (July 2011), submission from the Department of Energy and Climate Change, internal report.

²⁴ UK House of Commons, Energy and Climate Change Committee, *UK Deepwater Drilling: Implications of the Gulf of Mexico Oil Spill* (2011) (Second Report of Session 2010–11), Vol.I, para.90.

²⁵ *Oil & Gas Journal* (February 27, 2012).

is to be carried out of the Gulf Coast Claims Facility once all claims in relation to Macondo have been paid out.”²⁶

The problem with this approach is that it is far from clear whether there is sufficient energy insurance available globally to meet such expanded demands.

The insurance industry itself has been criticised as failing to keep up with changes in the legal and regulatory environment post-Macondo. The Director of Performance Management at Lloyd’s has noted that the environment has become more onerous.²⁷ A review of the offshore energy class in the Lloyd’s market revealed concerns about the way in which risks are now assessed and priced and the way in which exposures are managed. There is a “material imbalance between premiums charged and exposures assumed”. A major problem with the insurance of such risks is the discrepancy between the large amounts of capital needed to underwrite and the modest returns generated. Similarly, the size of claims from individual events such as Macondo and Piper Alpha dwarfs the premiums received. Moreover, there is a structural issue in the sense that package policies lack the transparency necessary to reveal energy sector risks and aggregations of risk are difficult to assess and manage.²⁸ It is not unreasonable to foresee that the market for insuring pollution risks will “dry out” completely.

The European dimension

Three notable reactions to the issues raised by the Macondo incident have been evident in the European context. The first is a regional legal instrument which has been proposed by the European Union. In October 2011 it published a draft Regulation which focused primarily on offshore oil and gas safety.²⁹ Ninety per cent of European production of oil comes from offshore operations with many new discoveries in deep waters. However, the scope of the EU measure is broad and encompasses all marine waters. It provoked a response from the European Parliament and some observations from the European Council.

For the issues considered in this article, this proposed measure is unlikely to have any direct relevance: it does not (at least in its present form) add to the debate on liability allocation nor does it address issues of who pays for oil spills. It is principally a regulatory instrument

targeted at health and safety issues. There is indeed a specific, secondary objective in the proposal to “(i)mprove and clarify existing Union liability and compensation provisions”. However, there is only an indirect focus on civil liability issues via the regulator’s assessment of financial capacity of an offshore oil and gas licence applicant (art.4). For UK operators, for example, there is no change in the civil liability position. It will not affect the manner in which joint venture parties seek to allocate liability among themselves. It does have a declared intention to amend the Environmental Liability Directive (ELD)³⁰ to apply to environmental damage in all marine waters, and separately the Commission is carrying out a review of risks and liability provisions, suggesting further proposals for change.³¹ With respect to the former initiative, insurers have argued that there is no established means of restoring the marine environment after an oil spill; damages under the ELD would therefore be unquantifiable, making it difficult to provide insurance to cover the damage. However, the fact that the Regulation has been proposed at all is indicative of the seriousness with which the Macondo incident has been viewed by the EU institutions. Moreover, in the view of the Fitch Ratings Agency, the unpredictability of the EU regulatory response to offshore oil and gas production activity is more likely to impact upon corporate credit ratings than “a more remote risk of another catastrophic multi-billion dollar offshore accident”.³²

A second response was evident at the International Regulators Forum in October 2011, which discussed national experiences with respect to offshore safety.³³ The role of industry-regulator coordination was emphasised and cooperation among safety and environmental regulators noted as was the linkage of the North Sea Offshore Authorities Forum in working with the European Commission as it develops its proposals. The conference overview declared that the Macondo and Montara disasters “have caused a paradigm shift in attitudes and requirements relating to safety and environmental protection in offshore petroleum activities”.³⁴ The IRF reviews of actions taken by NW European regulators contrasted sharply with those of other national regulators both in Europe and elsewhere.³⁵

²⁶ Offshore Oil & Gas UK, *An independent report into the regulatory regime* (December 2011).

²⁷ “Lloyd’s: Offshore energy underwriting ‘out of step’” (September 21 2011) available at: <http://www.cirmagazine.com/cir/lloyds-offshore-energy-underwriting-out-of-step.php> [Accessed August 8, 2012]; “Bolt criticises energy underwriters” *Insurance Insight*, September 22, 2011.

²⁸ In a letter to all CEOs and active underwriters dated July 29, 2011 Mr Bolt stated that it is “a requirement for 2012 plan approval that all Energy Liabilities written at Lloyd’s are underwritten in stand-alone policies; compliance with this requirement is a precondition of Lloyd’s approval of Syndicate Business Plans for Energy Liability”.

²⁹ European Commission, *Proposal for a Regulation of the European Parliament and of the Council on safety of offshore oil and gas prospecting, exploration and production activities*, COM(2011) 688 final, October 27, 2011.

³⁰ Directive 2004/35 on environmental liability with regard to the prevention and remedying of environmental damage [2004] OJ L143/56.

³¹ Oil & Gas UK, *UK Response to EC Impact Assessment on Offshore Regulation*, p.9. This is supported by statements made at the IRF by the EU representative: “Provisions for financial liability/recovery are incomplete” so that a priority is to “improve and clarify existing EU liability and compensation provisions”: see presentation by Jan Panek at: <http://www.irfoffshoresafety.com/conferences/2011Summit/> [Accessed August 8, 2012].

³² Fitch Ratings, *Special Report on EU Deepwater Oil and Gas Production* (April 10, 2012).

³³ This is an informal group of oil and gas regulators, including representatives from Australia, Brazil, Canada, Mexico, the Netherlands, New Zealand, Norway, the United Kingdom and the United States: <http://www.irfoffshoresafety.com> [Accessed August 8, 2012].

³⁴ See <http://www.irfoffshoresafety.com/conferences/2011Summit/> [Accessed August 8, 2012].

³⁵ Presentations from the event are available at <http://www.irfoffshoresafety.com/conferences/2011Summit/> [Accessed August 8, 2012]. In particular, see the presentations by the UK HSE and OLF/Oil & gas UK/NOGEPa.

The European Commission have also put out a call for tender (until May 25, 2012) to provide it with advice on liability and financial capacity questions with regard to the offshore oil and gas sector. As noted in the call for tender:

“The objective for this study is to provide the Commission with expert advice on civil liability provisions and identify financial security mechanisms available to cover civil liability damages following an offshore oil and gas accident in EU waters. The study will assist the Commission to develop policy options for ensuring that the EU has a comprehensive liability regime not only for environmental damage but also for traditional damage such as civil and economic damages that may occur to fishing, tourism and other coastal economic activities. The options should identify appropriate means and tools (such as funds, guarantees, insurance products, etc.) that will enable the liable operator to use them to both cover the full costs of such resulting liabilities and to be flexible enough to render early compensation to victims of the accident.”³⁶

International regulation

In July 2011 political leaders in the G20 organisation set up a working group called the Global Marine Environment Protection (GMEP). It involved international and national oil and gas companies as well as industry associations, governments, NGOs and international organisations. It aimed at sharing best practices in regulation “and to deal with the consequences” (of accidents).³⁷ The co-chair of the working group, Prof V. Sorokin, noted in 2011 the Russian proposal to establish an international mechanism for prevention and clean up of catastrophes on the marine shelf. This included a fund mechanism, which could be replenished at intervals by regional regulators through mandatory contributions from the industry “embedded in taxation systems or done through insurance systems”.³⁸

Civil society

Following the Macondo incident there has been a significant increase in interest by civil society groups in the environmental aspects of deepwater drilling. For example, Greenpeace has tried to block drilling from ships in both the North Sea and other parts of the world. One hundred thousand people responded to Greenpeace’s demand that a UK company, Cairn Energy, should publish its spill prevention plan for offshore Greenland after it had commenced drilling there. In addition, Greenpeace

has obtained permission from the High Court of England for a full hearing of its application for judicial review of the UK Government’s decision to award licences for deepwater areas licences on the UK Continental Shelf.³⁹ The argument made by Greenpeace is that no deepwater licences should be awarded until the ongoing investigation into the causes and implications of the Macondo incident is complete. In particular, they are able to point to initial findings that it is not always possible to close in a well after an emergency such as a blowout.

Choices to be made

The landscape of liability for catastrophic spills of hydrocarbons is likely to be changed in a radical manner and probably irreversibly. This may indeed be what certain governments will want and would also reflect a growing body of public opinion on the issue of risk in offshore petroleum operations. Discussions among the parties are increasingly likely to be influenced by the overall context in which governments are exploring ways of making provision for liability for catastrophic damage arising from a major oil spill. Given the current trend toward increased regulation, the present allocation of liability between contractors and operators is most likely to remain under pressure.

In this context, it may be recalled that governments play different roles in oil and gas development, some of which can raise conflicts of interest. In one role, governments are policy-makers with respect to how much development they want to see happen, which areas these developments will take place in, and what risks (socio-economic-environmental) they consider are associated with these developments. In another role, governments are regulators with respect to authorising the well programme and safety. In yet another role, governments are enforcers when they go after offenders who violate licence conditions or infringe the governing laws. In a further but perhaps less well understood role, governments are economic stakeholders in oil and gas development together with the operators. Governments collect bidding fees for acreage whether or not such acreage proves to be commercially developed or not. Where such development does occur, governments collect royalties from each barrel produced or have other forms of collections from production. Since governments have such important roles in policy-making, regulation, enforcement and as co-economic venturers (but without the financial risks) with the operators, what risks should governments shoulder in the event of a catastrophic incident? These risks can be seen variously from the standpoint of loss suffered by third parties, loss of natural resources, and damage to the environment.

³⁶ See http://ec.europa.eu/dgs/energy/tenders/index_en.htm [Accessed August 8, 2012]. It should also be noted that the EU established by Commission Decision in early 2012 a body called the EU Offshore Oil and Gas Authorities Group: [2012] OJ C18/8. This is not a regulatory body but a forum for the exchange of experiences and expertise.

³⁷ See <http://www.oecd.org> [Accessed August 8, 2012].

³⁸ Challenges of the G20 Global Marine Environment Protection Working Group (GMEP) at: <http://www.irffshoresafety.com/conferences/2011Summit/> [Accessed August 8, 2012].

³⁹ “Greenpeace challenges award of oil and gas licences”: <http://www.law-now.com/law-now/2011/greenpeaceoil/Mar11.htm>. The licences were awarded by the Department of Energy and Climate Change (DECC).

In this light, the question arises of what response is appropriate to this industry-wide change.

A first response is surely to communicate to governments *why* the current industry practice has arisen. It has a two part answer. First, the current practice has been developed to fit an industry that, at least with respect to offshore petroleum operations, is normally invited to make very large investments into high risk activities. That risk factor distinguishes it from many other industries. For the UK North Sea, where small centres of petroleum activity have emerged, the current allocation of liability plays a role in ensuring that diverse kinds of companies are able to compete. A change in the allocation of liabilities will have implications for this pattern of investment and for the pricing of risks. Secondly, the foregoing analysis has tried to underline the practicality of current international practice. The risk is allocated in service contracts in such a way as to place the largest share with the party that is best able to control and prevent that risk, and with the greatest upside: the operator. This allocation is also compatible with compliance with safety requirements, which is also organised in a proportionate manner. The allocation also recognises that a service company's operations are only one part of a string of inter-related activities undertaken by other contractors, all under the control of the operator. The pre-Macondo practice of regulators pursuing operators only and not contractors reflected this recognition.

In the face of the present challenge, the first option is to attempt to retain as much of the status quo as possible. This has attractions since it represents a known quantity; the traditional apportionment of liability has been effective over many years. It can also be argued that the Macondo incident is out of the ordinary as are the amounts involved and that it therefore should not elicit a general and disproportionate reaction. This does not however constitute a response to the changed set of facts that have been examined in this article. Already the operators in many national settings are acting to impose an alternative set of arrangements which would mark a change that would be adverse to contractors. This does not mean that change is inevitable, but it does raise serious questions about the long-term sustainability of the existing liability regime and the wisdom of not considering an alternative option. It also suggests a period of acrimony between the players might be commencing. In the event of a refusal by contractors to agree on any significant change, operators and contractors are likely to find themselves in litigation in the foreseeable future. Their ability to work together is likely to suffer as a result, not a small consideration given that future offshore activity is likely to become more complex and so require enhanced cooperation among the players. The question also arises as to whether the courts would uphold the indemnity (to the extent also that such indemnity is reflective of the traditional liability apportionment between operators and contractors (whereby operator is liable for catastrophic damages). Given the Orbit Valve case, it would seem that a contractor would be safe, to the extent he was able to

negotiate and agree to terms and conditions reflecting a traditional apportionment of liability with the operator, in the event of litigation in the United Kingdom. In the United States there are similar cases that could be relied upon. However, in other regimes there is no such certainty. In India, for example, the courts do not generally like exclusion clauses. As the review in the section entitled "International petroleum industry practice" above shows, there are inherent risks of enforceability.

Moreover, the section entitled "Gaps in the regime and their significance" above has noted the risk that certain kinds of operator may elect to default in the event of a catastrophe, leaving the contractor liable. There have already been at least half a dozen reported defaults by companies in the UK North Sea in relation to decommissioning obligations. The effectiveness of the status quo on liability apportionment against small or medium sized operators in the UKCS is also in question in the light of the amounts involved in the Macondo spill. The enforceability of the indemnity is therefore problematic. The issues of the recent attempts by regulators trying to impose liability on contractors will also have to be addressed as this represents a fundamental shift in liability allocation and is likely to have an impact on long-term sustainability of the service contract industry. Finally, there is the challenge this option presents of appearing to resist change in the face of a public image that is negatively affected by the ongoing post-Macondo litigation in the United States and the high degree of media interest in even the smallest spills.

A *second option* is to approach the relevant government body with a view to seeking the adoption of the kind of legislation or similar measures that would provide the necessary certainty. Given the evident public interest in this matter and the heightened perception of risk, it is not unlikely that intervention would be considered, perhaps with respect to the establishment of a fund accessible only to claimants based on production. Further, the largest stakeholder in terms of the development of a country's oil and gas assets is the country itself as represented by its government. The economic and energy security benefits needs to be balanced against the need to require responsible behavior but recognising the inherent risks in this industry regardless of how good the mitigation measures are. However, the question is more one of which measure or set of measures should be advocated. Should one be advocating the establishment of a fund into which parties have to make mandatory contributions? If so, it is nearly certain that the government would have to take the lead in developing the details, involving the industry in what would be complex discussions. The US Price-Anderson Act on channeling of liability for nuclear accidents might provide a model. It may also be desirable to invite the government to initiate discussions with a neighbouring state in areas where there is a common interest in a particular offshore area, such as the North Sea or the Gulf of Mexico. A bilateral solution could be sought. There are precedents for such regional solutions.

It could also involve industry associations with a strong operator element in them such as Oil & Gas UK. However, there is also a recent precedent with respect to *process*. The OSPRAG consultations highlighted the advantage of a joint industry/government initiative and could be opened up in this case to involve a wider range of stakeholders, leading to the emergence of solutions that were the result of a relatively open, inclusive process. In such a process, the participation of the insurance industry would be essential to ensure that any proposed solutions were practical and acceptable to it.

A *third option* is conceivable if a wholesale rewrite of the current liability regime were deemed necessary. An international convention could be initiated which sought to produce a sweeping global or regional set of rules. Any such instrument would require support from a number of governments for it to acquire momentum. Such an approach would probably be an ideal one, leading to a level playing field for operators and contractors globally. However, it would probably take years to negotiate, leading to a long period of uncertainty for operators and contractors, and in the meantime diverse and unpredictable reactions from some regulatory bodies. Looking beyond this industry, it is difficult to find recent examples of proposals for international conventions which have attracted strong support from governments. The failure to renegotiate a follow-up to the Kyoto Protocol might be seen as illustrative of this. The rather muted enthusiasm for the Energy Charter Treaty might be seen as a further illustration of a lack of appetite for such an ambitious step. An international good practice industry standard is a variant on the above option but once again it would raise issues about securing a consensus among very diverse stakeholders.

As the section entitled “Gaps in the regime and their significance” in this article above has noted, there are definite moves among governments to foster closer cooperation among regulators, and of course there is a distinct regional initiative by the European Union to develop a scheme for regional cooperation. This suggests that an inter-governmental initiative by individual governments may achieve limited goals, for example with respect to harmonisation of regulation and transfer of good or best practices. One may also be able to envisage some form of Good Practice Code emerging from such a forum as the IGR, setting out what a “responsible” government regulator needs to do (regular inspections, transparent rules, ability to impose fines and create funds, standards of enforcement and so on). Among other consequences, this may limit the risk of governments competing to impose high penalties and fines upon operators and contractors. It may also be the forum in which to tackle the issue of some government regulators acting to impose financial penalties as an indirect form of revenue-raising, imposing transaction costs upon the industry and even raising questions about corrupt practices. It may even be the forum in which to raise the issue of indemnification mechanisms, and invite the industry to make proposals. Within the European Union

there are examples of energy regulators engaging in cooperation, such as through the Council of European Energy Regulators or the various bodies established within the framework of the EU internal energy market. They have been particularly effective in creating a minimum “regulatory culture”, which is certainly lacking in the offshore petroleum area at the moment.

A *fourth option* would be to seek the introduction of a new initiative by means of voluntary actions from the industry alone. Among the instruments that could be considered is a fund to cover the liability that all contractors would contribute to, which would deal with the situation that arises in the event of a catastrophe, like Macondo, and which could be drawn upon also in the event of default by a party (in other words, if the operator fails the fund mechanism kicks in). This approach would stand less chance of generating practical solutions if it failed to involve the insurance industry. For instance, if the contractors were to propose to take some degree of liability on a capped basis and back it up with insurance that could be charged back to the operator, the views of the insurance industry would be essential to take on board formally to develop such a proposal. A disadvantage of such an approach is that it ignores or underplays the large element of public interest involved in this matter, and the long tradition of government intervention in offshore petroleum regulation that is common around the globe. It is unlikely that any solutions that emerged from this process (if any did in fact emerge) would be deemed to be neutral or having global and even regional influence. Furthermore, the disproportionate levels of investment in technology and safety training among contractors and the limited number of contractors participating in deeper water projects makes this scheme difficult to propose since it might be viewed as being more protective of an inefficient and unsafe contractor.

A *fifth option* would represent a synthesis of certain elements from the above and would offer a more inclusive and focused response to the concerns about the adequacy of the current liability allocation regime. Essentially, it would seek government support for an industry initiative which included the insurance industry as well as operators and contractors but would seek to build a regional response, probably in the North-East European region. This would make an EU initiative less necessary since the European Union could be involved. It would be driven by governments that have already shown a propensity to act together in their common interest. It would give muscle to an industry-wide participation which is a *sine qua non* for the generation of practical solutions. It would have a strong chance of implementation within a time frame that is fairly short and could become a model for other regions around the world.

The overall aim of the latter solution would be to let governments take the measure of the problem and step in to provide legal stability so that a viable allocation of liability can emerge and insurance markets can adapt. Any apportionment of liability must however take into account who is best able to pay for the risk.

In addition to the above, some research could be carried out to determine in a comparative way whether other industries such as the nuclear industry, for example, or the shipping industry have lessons to yield with respect

to the establishment of some form of industry fund to cover the liability, with all contractors paying into it (for example, the TOVALOP model for the liability of tanker owners for pollution from ships).