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Health, Safety and Environmental Regulation on the United Kingdom Continental Shelf in the Aftermath of the Macondo Disaster

*John Paterson**

INTRODUCTION

Prior to the 2010 Macondo disaster in the Gulf of Mexico, the United Kingdom's approach to the regulation of offshore occupational health and safety, on the one hand, and to environmental protection, on the other, had evolved considerably over its forty-five year history. In regard to health and safety, an essentially self-regulatory approach gave way to detailed prescriptive regulation. This transformation occurred in response to the *Sea Gem* disaster in 1965, but it was subsequently supplanted by the current goal-setting and safety case regime established in the aftermath of the 1988 *Piper Alpha* disaster. Concurrently, driven in no small measure by the United Kingdom's international—especially European—obligations, environmental regulation had expanded, to the point that, by 2010, every aspect of offshore operations was subject to multiple pieces of environmental legislation. In many respects, it was unforeseeable that an accident occurring in another jurisdiction, especially one governed by different regulatory approaches, would have produced any significant impact on the United Kingdom's arrangements.

Nevertheless, the Macondo disaster's effects on the British regulatory scheme continue to be felt in the United Kingdom some five years after the accident. Significantly, however, the most important of these effects have not come directly to the United Kingdom, but rather were transmitted via the European Union. Furthermore, the latest developments are impacting the United Kingdom's offshore occupational health and safety regime, which had previously been relatively self-contained in comparison to that of the European Union, where regulation of the offshore industry was principally tied to environmental regulation. The question, therefore, arises as to whether such change is wholly coherent with the existing British system, or whether it introduces a potentially destabilizing inconsistency. In other words, have the institutions of the European Union unnecessarily complicated the United Kingdom's arrangements with their attempts to minimize the risks of a Macondo-style disaster in European waters? Conversely, where the European Union has followed the United

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Kingdom's approach to intervention, has it inadvertently compelled wider adoption among other Member States of a regulatory approach that remains questionable in many aspects?

Answering these already complex inquiries requires consideration of two other issues that have arisen since 2010. The first questions the influence of other institutional reforms underway in the United Kingdom as a result of the previous regime's concern over the effects of the United Kingdom Continental Shelf's (UKCS) maturity as a hydrocarbon province, specifically related to the maximum economic recovery of oil and gas. The second raises the more current issue of the significant reduction in the price of oil and the expectation that the recent levels—even as of the summer of 2014—will not be achieved again in the foreseeable future.

Part I of this article considers the United Kingdom's own post-Macondo parliamentary and independent reviews of its regulatory regime for occupational health and safety and environmental protection. Part II moves on to assess the European Union's interventions. Conclusions are then drawn, suggesting that while the United Kingdom's regulatory arrangements will not likely be threatened by the actions of the European Union, the transposing of United Kingdom models on other less developed regions of the OCS could prove problematic.

I. THE UNITED KINGDOM'S REVIEW OF ITS HEALTH, SAFETY AND ENVIRONMENTAL REGULATION

The scale of the Macondo disaster, both in terms of lives lost and in terms of the amount of oil spilled, could not be easily ignored by any state involved in offshore oil and gas production. Thus, even if the United Kingdom felt that it had relatively advanced and sophisticated regimes for the regulation of occupational health and safety and the regulation of environmental protection, it nevertheless had no interest in appearing complacent or suggesting that there were no lessons to learn from such an unprecedented event. In any case, the fact that the United States had already announced a moratorium on deepwater drilling—and the European Union Commissioner for Energy had called on Member States to do the same—made it imperative that the United Kingdom either follow suit or demonstrate clearly that such action was unnecessary.

The Parliamentary Select Committee for Energy and Climate Change (Select Committee) announced an inquiry on July 20, 2010, “to examine the safety and environmental regulations of oil and gas operations on the UKCS—especially in the deepwater to be found in the region West of Shetland—and the potential positive and negative impacts of a

moratorium on deepwater drilling.”¹ The Select Committee sought evidence on, *inter alia*, “the extent to which the existing British safety and environmental regulatory regime is fit for purpose.”² The implicated government departments and agencies—the Department of Energy and Climate Change (DECC), the Health and Safety Executive (HSE), and the Maritime and Coastguard Agency (MCA)—converged to deliver a unified response to this call. They took a position that attempted to strike a balance—on the one hand claiming that “[o]ur regulatory regime is already among the most robust in the world and the industry’s track record in the North Sea is strong,” whilst on the other acknowledging that “we must learn everything we can from the Macondo well.”³ The Memorandum submitted by the three bodies set out their respective roles and responsibilities as they were established following the *Piper Alpha* disaster in July 1988, when 167 men were killed in the destruction caused by an explosion and fire on a major North Sea production platform. The HSE was responsible for assessing and regulating “the integrity and safety of offshore installations in the [United Kingdom]” under the Health and Safety at Work etc. Act 1974, particularly the goal-setting and safety case regulations which were introduced following the inquiry into the disaster, led by Lord Cullen, a senior Scottish judge.⁴ DECC was responsible for licensing and environmental regulation offshore, which included the duty to approve Oil Pollution Emergency Plans. The MCA was responsible, “if required, for deploying any counter pollution measures to minimise a pollution incident.”⁵ The Memorandum noted that a variety of international initiatives designed to learn the lessons of Macondo were already under way, and, while it outlined the United Kingdom’s engagement with all of these, it also stressed the need to ensure that any proposed changes:

1. PARLIAMENTARY SELECT COMMITTEE ON ENERGY AND CLIMATE CHANGE—SECOND REPORT, UK DEEPWATER DRILLING—IMPLICATIONS OF THE GULF OF MEXICO OIL SPILL, 2010-11, H.C. 450-I, 1 [hereinafter SELECT COMMITTEE REPORT].

2. *Id.* at 2.

3. MEMORANDUM SUBMITTED BY THE DEPARTMENT OF ENERGY AND CLIMATE CHANGE, HEALTH & SAFETY EXECUTIVE, AND MARITIME AND COASTGUARD AGENCY, 6 January 2011, 4 [hereinafter MEMORANDUM].

4. LORD CULLEN, THE PUBLIC INQUIRY INTO THE PIPER ALPHA DISASTER Cm. 1310 1990) [hereinafter CULLEN REPORT].

5. MEMORANDUM, *supra* note 3, at 9–11.

are based on robust evidence; are proportionate and risk assessment based; avoid disruption to existing mature regulatory regimes (such as the UK's) that have proven to be effective over time; and do not lead to any reduction in national safety requirements by setting lower international standards.⁶

The specificity of the United Kingdom's approach, in particular to health and safety regulation, must be understood in order to grasp the precise significance of those enumerated concerns. On the recommendation of an inquiry made into the 1965 *Sea Gem* disaster, the United Kingdom had shifted from a relatively light-touch and essentially self-regulatory approach to one characterized by detailed prescriptive rules.⁷ The difficulty involved in producing this level of detail for a technologically complex and evolving industry soon became apparent,⁸ but the United Kingdom stuck to the task even as it abandoned a similar approach to onshore industries.⁹ The United Kingdom launched another inquiry to report on the fitness of its own regulatory regime in the aftermath of the Ekofisk blowout—which occurred in the Norwegian sector of the North Sea in 1977—but missed the opportunity to remedy this problem.¹⁰ With the benefit of hindsight, the folly of the United Kingdom's approach in the 1970s and 1980s appears all too evident, but it took the *Piper Alpha* disaster in 1988 to lay bare the extent to which the detailed prescriptive regulatory regime had become detached from the reality of operations on the UKCS. With DECC's predecessor, the Department of Energy,¹¹ being criticized for failing to conduct meaningful inspections,¹² and the operator, Occidental, being criticized for having a superficial attitude to risk mitigation,¹³ it came as no surprise that Lord Cullen's inquiry recommended sweeping changes. In addition, Lord

6. *Id.* at 25.

7. MINISTRY OF POWER, REPORT OF THE INQUIRY INTO THE CAUSES OF THE ACCIDENT TO THE DRILLING RIG SEA GEM, 1967, Cmnd. 3409.

8. It took four years from the publication of the *Sea Gem* inquiry report to pass framework legislation in the form of the Mineral Workings (Offshore Installations) Act 1971. The full set of regulations under the Act was not in place until 1980. Not insignificantly, the last of these were the Offshore Installations (Well Control) Regulations 1980 (SI 1980/1759).

9. GREAT BRITAIN COMMITTEE ON SAFETY AND HEALTH AT WORK, SAFETY AND HEALTH AT WORK: REPORT OF THE COMMITTEE, 1972, Cmnd. 5034 (U.K.).

10. BURGOYNE COMMITTEE, OFFSHORE SAFETY: REPORT OF THE COMMITTEE, 1980, Cmnd. 7866 (U.K.).

11. Note that at this time the Department of Energy had responsibility not only for licensing and environmental regulation but also for health and safety offshore.

12. CULLEN REPORT, *supra* note 4, at para. 15.48–50.

13. *Id.* at ch. 14.

Cullen's skepticism regarding the prescriptive regulatory approach¹⁴ and his findings on the inadequacies of the industry's much-vaunted emergency response arrangements,¹⁵ and the case for wholesale change became compelling. The inquiry's recommendations, accepted in full by the government of the day,¹⁶ resulted in the transfer of responsibility for health and safety offshore from the industry's sponsoring department to the dedicated HSE.¹⁷ The United Kingdom abandoned the prescriptive regulatory approach in favor of a goal-setting approach more in tune with the reforms made in other industries during the 1970s.¹⁸ This shift assigned the operator, as the creator and manager of risk, the responsibilities of identifying the hazards affecting his or her specific installation, assessing the related risks, and finally specifying the measures necessary to minimize and mitigate those risks. This process would be formally set out in a document—the safety case—for each installation, making the case to the regulator that the design, construction, and operation of the installation were safe.¹⁹ Significantly, the workforce would also be involved in the preparation of the safety case. The regulator—the HSE—would then either accept this case or seek modifications until satisfied. Furthermore, the safety case itself would exist as a “living document,” which would be updated on an ongoing basis to reflect the changing set of hazards confronting the installation and the consequent impact on the risk assessment and, by extension, on the range of risk minimization and mitigation measures required. Lord Cullen insisted that it was impossible to legislate safety,²⁰ and the extent to which this new regime adopted that belief is abundantly clear: the onus was no longer on the state to develop detailed regulations that guaranteed safe operations contingent on compliance. Rather, the onus fell on the individual operator to develop an

14. *Id.* at para. 21.51, para. 21.42.

15. *Id.* at para. 9.49–57. See also BURGOYNE COMMITTEE, *supra* note 10 at Submission 43, para. 5.3.

16. For the parliamentary debate, see 180 PARL. DEB., H.C. (6th ser.) (1990) 329–345; 187 Parl. Deb., H.C. (6th ser.) (1991) 472–576.

17. Offshore Safety Act 1992.

18. Offshore Installations (Management and Administration) Regulations, 1995, SI 1995/738; Offshore Installations (Prevention of Fire and Explosion, and Emergency Response) Regulations, 1995, SI 1995/743; Offshore Installations and Wells (Design and Construction, etc.) Regulations, 1996, SI 1996/913; Pipelines Safety Regulations, 1996, SI 1996/825; Diving at Work Regulations, 1997, SI 1997/2776; and Lifting Operations and Lifting Equipment Regulations, 1998, SI 1998/2307.

19. Offshore Installations (Safety Case) Regulations, 1992, SI 2885/1992, replaced by Offshore Installations (Safety Case) Regulations, 2005, SI 3117/2005.

20. CULLEN REPORT, *supra* note 4, at para. 21.4.

approach to operations on his or her installation that would ensure the safety of the workforce and of the installation itself.

Therefore, the concerns expressed by the United Kingdom's regulatory authorities in the evidence they presented to the Select Committee can be clearly understood as a warning against any knee-jerk reaction to the Macondo disaster that ran contrary to the lessons the nation had already learned, not least in relation to a regulatory approach avoiding as far as possible prescriptive "solutions" handed down by the government and placing the key responsibility for hazard identification, risk assessment, and risk minimization and mitigation on operators. The net effect of the United Kingdom's approach in this regard would require any authority acting in such a prescriptive way to be certain the "solution" imposed fits with the existing safety case for each installation, without thereby creating hazards or increasing risks as a consequence of its interaction with existing specific environmental or infrastructural issues. Confirmation that this concern was key in the minds of the United Kingdom's responsible regulatory bodies may be inferred from the conclusions drawn in the Memorandum in relation to the likelihood that the sequence of events leading up to the Macondo disaster could have occurred on the UKCS under the regulatory regime outlined above.

Insofar as the United States had resisted any temptation to follow the United Kingdom and other developed jurisdictions down the road towards a risk-based approach to the regulation of health and safety offshore—away from detailed prescription—and had persisted with a regulator, the Minerals Management Service, that performed multiple (potentially conflicting) functions in relation to licensing, revenue collection, and safety and environmental regulation, the conclusions reached by the United Kingdom's authorities are perhaps unsurprising:

[T]he Government believes the UK has a rigorous offshore oil and gas safety regime, with significant differences in the type and style of the legislative requirements and the regulatory/enforcement approach compared with the USA. The UK offshore oil and gas industry also has a somewhat different safety culture than that in the Gulf of Mexico. Here, there is greater workforce engagement in safety issues, which is supported by regulatory requirements. Whilst it is impossible to say that such a blowout as occurred with the Deepwater Horizon could never happen in UK waters, our additional and different layers of regulatory protection provides a reduced probability that it would.²¹

21. MEMORANDUM, *supra* note 3, at para. 46.

Nor was the Select Committee itself unpersuaded by this conclusion. It opined that “the UK [United Kingdom] has high offshore regulatory standards, as exemplified by the Safety Case Regime,” and that the United Kingdom’s framework “is based on flexible, goal-setting principles that are superior to those under which the Deepwater Horizon operated.”²² Nevertheless, indications that the Select Committee was not entirely convinced by evidence from the industry regarding the implementation of the regulatory regime persist. Among its conclusions, the Select Committee also noted its concern “that the offshore oil and gas industry is responding to disasters, rather than anticipating worst-case scenarios and planning for high-consequence, low-probability events.”²³

The seriousness of this problem as identified by the Select Committee is perhaps not immediately apparent, but it is submitted that, if this finding is correct, it would in fact represent a profound questioning of the United Kingdom’s post-*Piper Alpha* approach to health and safety regulation offshore. Indeed, it could be concluded that the regime does not actually achieve what is claimed for it. Insofar as a safety case is genuinely a living document representing the operator’s understanding at any given time of the hazards confronting his or her installation, the assessment of the risk, and an account of the risk minimization and mitigation measures, then it would surely be impossible for the industry to have adopted a reactive stance rather than an anticipatory one. If such a profound questioning of the goal-setting and safety case approach is possible, does this indicate that the rejection of the prescriptive approach in the aftermath of the *Piper Alpha* disaster was perhaps too hasty? Before any answer to this question is attempted, it is necessary to consider in greater detail the nature of the approach to environmental regulation that was subject to review by the Select Committee and current on the UKCS at the time of the Macondo disaster.

While the Macondo disaster could be seen in the first instance as a failure of safety regulation, the focus thereafter is very much centered on its environmental effects. Whereas the United Kingdom’s safety regime had been developed substantially in the aftermath of the *Piper Alpha* disaster, the focus in that case on the very considerable loss of life meant that little consideration was paid to environmental regulation at that time. As mentioned, the environmental regulation of the industry on the UKCS derives in no small measure from European Union legislation and the range of activities subject to environmental protection regulations is very wide indeed. From concern over acoustic disturbances of marine mammals stemming from seismic surveys during exploration, to the need to comply with a range of provisions relating to atmospheric emissions during

22. SELECT COMMITTEE REPORT, *supra* note 1, at para. 3.

23. *Id.* at para. 4.

operations, to the regulation of well abandonment at decommissioning—every stage of the lifecycle of a hydrocarbon project requires compliance with dozens, if not hundreds, of pages of regulations.²⁴

While the Select Committee did devote time to environmental regulation, its focus markedly emphasized the safety dimension. By contrast, the independent review (Maitland Review) of the regulatory regime for offshore oil and gas conducted at the request of the Secretary of State for Energy and Climate Change had more to say in this regard.²⁵ In particular, the Maitland Review noted:

Much of the UK's offshore environmental regulation regime is concerned with preventing or minimising any leakage of hydrocarbons during normal operations, and is strongly governed by EU regulation in this area. Consequently it is relatively prescriptive compared to the safety regime, with less scope or encouragement for operator initiatives to innovate or be proactive.²⁶

Accordingly, the Maitland Review explicitly criticized the general European Union approach to environmental regulation, insofar as its prescriptive nature limits the ability of the operator to identify the best solution to hazards and risks affecting the individual installation. That observation thus implicitly endorsed the goal-setting and safety case approach, which is supposed to have the virtues of ensuring that responsibility lies with the creator of risk and providing a framework to achieve ongoing hazard identification, risk assessment, and risk minimization and mitigation.

It might, therefore, be concluded that the Select Committee's concerns regarding the safety case approach should not lead blindly back to re-adoption of a prescriptive approach. On the other hand, the Maitland Review made clear that the review panel shared the Select Committee's concerns about the safety case approach, noting that although it viewed that regime "as, on the whole, robust and effective at identifying risks and

24. A good impression of the range and complexity of regulation applying to offshore hydrocarbon operations may be gained from the environmental legislation database maintained by Oil and Gas UK. See *Legislation Index*, OIL & GAS UK, <http://oilandgasukenvironmentallegislation.co.uk/legislation-index.htm> [perma.cc/7ES8-RVH7] (last visited Jan. 11, 2016).

25. A panel chaired by Professor Geoffrey Maitland conducted the review. Geoffrey Maitland, *Offshore Oil and Gas in the UK: an independent review of the regulatory regime*, December 2011, at 4, available at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/48252/3875-offshore-oil-gas-uk-ind-rev.pdf (hereinafter Maitland Review).

26. *Id.*

appropriate measures for mitigation and response, it [had] some concerns about the processes for confidently assuring that these plans are reliably and effectively implemented.”²⁷

The United Kingdom’s own assessment of its health, safety, and environmental regulations at the time of Macondo might, therefore, be summarized as follows. Prescription in relation to health and safety has been abandoned and no compelling reason appears to justify a return to it. Prescription in relation to environmental protection may suffer from the same problems that previously beset this approach to safety, but, insofar as the United Kingdom is bound by European legislation that is characterized by this approach, little room remains for maneuver. The preference for the goal-setting and safety case approach should not, however, be read as blind faith that this regulatory orientation is inevitably superior, since its success depends upon the extent to which it is appropriately implemented; evidence of problems in this regard persist. This most recent finding by the Select Committee in 2010 and by the Maitland Review in 2011 are all the more troubling, as they essentially confirm problems identified by the HSE in 2007,²⁸ which should, in essence, have been resolved by 2009.²⁹

II. THE EUROPEAN UNION’S INTERVENTION

If these were the problems confronting the United Kingdom as a mature hydrocarbon province, they were nothing compared to those facing the European Union’s institutions. Prior to the Macondo disaster, those bodies had not displayed a particular interest in the upstream industry beyond the application of general environmental and health and safety law, as well as a somewhat more direct, but still light, involvement in the industry’s health and safety through the Extractive Industries Directive.³⁰ However, following the Macondo disaster, the interest of European Union institutions in the offshore industry increased significantly. Both the

27. *Id.*

28. HEALTH AND SAFETY EXECUTIVE, KEY PROGRAMME 3: ASSET INTEGRITY PROGRAMME: A REPORT OF THE OFFSHORE DIVISION OF THE HSE’S HAZARDOUS INSTALLATIONS DIRECTORATE, 2007-8.

29. HEALTH AND SAFETY EXECUTIVE, KEY PROGRAMME 3: ASSET INTEGRITY PROGRAMME: A REVIEW OF THE INDUSTRY’S PROGRESS, A REPORT OF THE OFFSHORE DIVISION OF THE HSE’S HAZARDOUS INSTALLATIONS DIRECTORATE, 2009-10.

30. Council Directive 92/91/EEC concerning the minimum requirements for improving the safety and health protection of workers in the mineral-extracting industries through drilling, 1992 O.J. L 348/9.

European Parliament³¹ and the European Commission (Commission)³² indicated in October 2010 that legislative action was necessary at the Union level. Initially the suggestion contemplated restricting such action to the amendment of the Extractive Industries Directive, but the eventual proposal from the Commission contemplated a new regulation.³³ Publication of the proposed regulation provoked consternation in the United Kingdom—the largest oil producer in the European Union.³⁴ The concern flowed from the fact that the approach to health and safety regulation contained in the document was perceived to run counter to that adopted in the United Kingdom, despite the pains taken by the Commission to suggest that it had drawn inspiration from the best practices evident in the United Kingdom and other producing Member States. The apprehension was all the more acute in the United Kingdom and other experienced producer states because, under European Union law, a regulation has direct effect without the need for any transposition into domestic law and supersedes contrary Member State law. Member States saw this intervention as particularly heavy-handed and feared that it might undo years of lessons that were often learned the hard way.

The strength of the reaction against the proposal, as well as the number of identified problems suggesting a lack of understanding of the industry, may have persuaded the Commission that legislating by way of a directive would be more appropriate. In contrast to a regulation, a directive under European Union law requires action from the Member States to implement its requirements through domestic law. A directive also offers Member States more freedom of action, with the emphasis being on the achievement of the overall objective rather than on the means of achievement. Therefore, industry leaders and regulators in countries such as the United Kingdom greeted the replacement of the proposed regulation with a draft directive with some relief. A close reading of the eventual Offshore Safety Directive (OSD)³⁵ suggests, however, that the impact will

31. EU action on oil exploration and extraction in Europe, 2011 O.J. C 371E/03.

32. European Commission, Communication from the Commission to the European Parliament and the Council: Facing the challenge of the safety of offshore oil and gas activities, SEC (2010) 1193 final, 12 October 2010.

33. 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, 27 October 2011.

34. Norway also objected strongly to the proposal. Though not a member of the EU, it would be affected by the Regulation through its membership in the European Economic Area, as the Commission was of the view that this legislation had significance for the EEA.

35. Directive 2013/30/EU of the European Parliament and of the Council of 12 June 2013 on safety of offshore oil and gas operations and amending Directive 2004/35/EC Text with EEA relevance, 2013 O.J. L 178/66.

still be significant, especially in terms of regulatory architecture. Thus, the Commission's concern in eliminating conflicts of interest between economic development on the one hand, and health, safety, and environmental regulation on the other,³⁶ meant that DECC could not retain both its licensing and environmental regulatory responsibilities.

This requirement in the OSD could have posed a tricky problem for the United Kingdom had it not been for the fortuitous intervention of Sir Ian Wood's Review (Wood Review), published in early 2014 and dealing with the maximization of the economic recovery of hydrocarbons.³⁷ The incumbent-Secretary of State for Energy and Climate Change commissioned the review, soliciting from Wood—a respected member of the oil and gas industry—his views on which reforms of the United Kingdom's licensing and regulatory regime were necessary to ensure, as the country entered the late stages of maturity as a hydrocarbon province, that as much of its oil and gas resources as possible would be extracted before cessation of production. Among his recommendations, Wood proposed that the licensing function currently performed by DECC should be taken over by a new independent, arm's-length regulator with novel and enhanced powers to direct the industry and to overcome commercial behaviors that, though in the interest of individual licensees and their co-venturers, were not conducive to maximizing the economic recovery of the nation's hydrocarbon resources. Acceptance of these recommendations led to the formation of the Oil and Gas Authority (OGA),³⁸ which will assume the licensing duties currently borne by DECC. The net effect of this change eliminates the potential conflict of interest within DECC between licensing and environmental regulation. As will be seen in due course, however, it is still unknown whether this apparently neutral institutional change will raise issues of relevance for health, safety, and the environment.

A further complication arises from the fact that the OSD calls for health, safety, and environmental risks to be considered together. Whereas the United Kingdom, after the *Piper Alpha* disaster, moved to separate the regulation of health and safety from the licensing function, the regulation of environmental protection was not similarly affected. Therefore, while the safety case focuses on the identification of hazards affecting health and safety, thereafter seeking to quantify risks to health and safety and detailing the employment of measures to reduce those risks to a level as low as reasonably practicable, the equivalent document in the OSD—the

36. *Id.* at Article 8(2).

37. SIR IAN WOOD, UKCS MAXIMISING ECONOMIC RECOVERY REVIEW: FINAL REPORT (2014).

38. *See* Infrastructure Act, (2015), § 7, 41–48 (U.K.). A further bill, which will detail the new regulator's powers, is expected at the time publication.

Major Hazard Report—calls for simultaneous consideration of health and safety hazards *and* environmental hazards, followed by appropriate risk assessment and management. These requirements, transposed into British law by new regulations,³⁹ replace the existing Safety Case Regulations of 2005.

While operators may find it relatively straightforward to adapt to the new approach—not least because many oil companies already unify health, safety and environmental functions within one department—the question arises as to how the review and acceptance of the new safety case will be achieved at the level of the regulator, since the HSE claims no expertise in environmental matters and DECC claims none in relation to health and safety. The OSD itself provides only that a competent authority will perform the role and leaves open the possibility that more than one regulatory body comprise that authority. The United Kingdom’s approach in this regard has been to create a specific regulator responsible for the implementation of the OSD, the Offshore Safety Directive Regulator (OSDR), which is “a partnership between HSE’s Energy Division and DECC’s Offshore Oil and Gas Environment and Decommissioning Team.”⁴⁰ This administrative scheme is of course, possible, because of the transfer of licensing functions away from DECC to the OGA. The OSDR stresses that the two bodies, DECC and HSE, “already work closely together under a Memorandum of Understanding (MoU) for liaison between the two organizations and their regimes,” though it also acknowledges that “existing arrangements need to be expanded to comply with the requirements of the [OSD].”⁴¹ Given that DECC and the HSE have collaborated successfully onshore in relation to the implementation of European Union legislation relating to the control of major accident hazards (COMAH),⁴² there is surely every reason to be optimistic that the new arrangement offshore will not give rise to any undue complications, and it may indeed produce a more integrated appraisal of health, safety and environmental hazards and risks.

39. The Offshore Installations (Offshore Safety Directive) (Safety Case etc.) Regulations, 2015, 2015, S.I. 2015/398 (U.K.).

40. For details, see Health and Safety Executive, *Offshore Safety Directive Regulator*, <http://www.hse.gov.uk/osdr/index.htm> [perma.cc/9CV5-QMHX] (last visited Dec. 14, 2015).

41. See Health and Safety Executive, *OSDR – The Competent Authority*, <http://www.hse.gov.uk/osdr/authority.htm> [perma.cc/9FAC-V8E6] (last visited Dec. 14, 2015).

42. The European Union’s Directives as to COMAH are often referred to as the “Seveso Directives”. See The Control of Major Accident Hazards Regulations 2015, 2015, S.I. 2015/483 (U.K.). For details of the HSE’s cooperation with environmental regulators in this regard, see *The COMAH Competent Authority*, HEALTH AND SAFETY EXECUTIVE, <http://www.hse.gov.uk/comah/authority.htm> [perma.cc/Q4TR-3UZ2] (last visited Dec. 14, 2015).

CONCLUSION

This article opened with two questions relating to the impact of the European Union's intervention in the regulation of health and safety and environmental protection in the offshore oil and gas industry in the aftermath of the Macondo disaster. First, in attempting to ensure that the risks of a Macondo-style disaster in the waters of the European Union are minimized, have that organization's institutions unnecessarily complicated the United Kingdom's arrangements? Second, where the European Union's intervention has followed the United Kingdom's existing approach, has it inadvertently compelled the wider adoption among Member States of an approach to regulation about which questions may legitimately be raised?

Given the extent to which the Commission's initial proposals were modified in the face of significant criticism, and given that the key impact on regulatory architecture in the United Kingdom has been to bring DECC and the HSE together as the OSDR, in a manner substantially mirroring their existing COMAH cooperation, good reasons surely support answering the first question in the negative. Of course, it is worth bearing in mind that this solution was only made possible by the fortuitous establishment of the OGA and the transfer to it of DECC's licensing function. What would have happened should the Wood Review not have occurred, or should Wood have come up with different recommendations in relation to licensing, remains an open question?

The second question is not so easy to answer. Certainly substantial grounds exist supporting the widespread view in the United Kingdom that its goal-setting and safety case regime does indeed constitute best practice and offers, in principle, significant advantages over a detailed prescriptive approach to regulation. Accordingly, very good reasons justify the conclusion that the adoption of this approach throughout the European Union should be welcomed and that Member States who may be in an earlier phase of offshore development—(of which there are a number in the Mediterranean and Black Seas)—will therefore benefit from the experience gained by countries such as the United Kingdom. On the other hand, the nagging questions about the extent to which the safety case, as a paper exercise, reflects and/or affects physical operations remain. These questions were previously raised by the HSE in 2007 and, despite reassurances that they had been addressed in 2009, their re-emergence in the conclusions of both the Select Committee Review and the Maitland Review in 2010 and 2011, respectively, is striking. Is there a risk, then, that the Commission, in compelling the European Union-wide adoption of this approach, has thereby spread not best practice, but rather a practice

that, despite its advantages over prescriptive regulation, appears to contain a weakness that has not yet been convincingly addressed?

If that risk does indeed exist, then it is surely one that will only be exacerbated by the current low price environment that has seen the industry, as in previous downturns, cutting costs aggressively. While the safety case should, as a living document, prevent cost-cutting that increases safety risks, the HSE's 2007 findings suggest that this effect did not occur during earlier low price situations. If this scenario poses potential problems for any state with an offshore industry, it does so all the more for the United Kingdom, which, fifty years after the award of its first license, now sees much of its offshore infrastructure characterized as "aging assets." With the advent of the new (and newly-empowered) regulator through the OGA, the circumstances potentially place operators at the center of a maelstrom of competing pressures. From one direction, the operators may face pressures to cease production and decommission due to the maturity of the reservoir and the low price environment. From another, they may see unprecedented demands from the OGA to retain infrastructure and collaborate with other joint ventures—and invest accordingly—in the wider interests of the state, irrespective of what their individual commercial decision might have been. From yet another direction, operators may face pressures from the OSDR either to invest to ensure ongoing safe and clean operation or to decommission aging assets.

Thus, the energy trilemma between energy security, economic development and environmental protection, though a macro-level global problem, thus also exists in an acute form at the micro-level of individual offshore installations in a mature hydrocarbon province such as the UKCS. The European Union's interventions were no doubt well intentioned, and they may have many benign effects. One nevertheless may wonder whether, in reacting to the specific circumstances of the Macondo disaster, the European Union missed the opportunity to resolve the problem that could have had the greatest impact on ensuring that offshore oil and gas operations would be safe and clean in the most complex situations, including those characterized by competing political, economic, and environmental pressures. This goal could perhaps be better served by focusing attention not on the widespread deployment of the safety case approach, but rather on ensuring that, once deployed, implementation occurs in such a way as to actually reflect and affect physical operations.⁴³

43. This point was made by the author in the May 20, 2011 submission produced by a Working Group of the IBA's Oil and Gas Committee and Environment, Health, and Safety Law Committee in response to the European Commission's Public Consultation on Offshore Safety launched on March 16, 2011.