

OFFSHORE PETROLEUM REGULATION: THEORY AND DISASTER AS DRIVERS FOR INSTITUTIONAL CHANGE

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ABSTRACT

The overhaul of U.S. offshore regulatory arrangements that followed the Macondo/Deepwater Horizon disaster is only the latest in a series of regulatory reconstructions undertaken over the years by major offshore petroleum producing countries. In this article, we attempt to relate the continuing process of design and redesign of offshore regulatory institutions that has been going on since the 1960s in the United Kingdom, Norway, and Australia to the general precepts of “good regulation” that have been developed, notably within “western” governments and in bodies like the Organisation for Economic Co-operation and Development (OECD) and the World Bank, since the 1980s. How influential have these precepts been in recent processes of reform? Do they suggest that the United Kingdom, Norway, and Australia all spent decades practicing “bad” offshore regulation? Have there been other influences or factors (not least the occurrence of disasters like the antecedents of Macondo) shaping the evolution of offshore regulation? And does this evolution suggest any limits to the applicability of current doctrines about “good regulation” to the particular circumstances of offshore oil exploration and production?

I. INTRODUCTION

The blow-out and fire on the Deepwater Horizon rig in the Gulf of Mexico in early 2010, which caused loss of life and an unprecedentedly large underwater oil and gas spill from the Macondo well, called into question not only the competence of even the largest oil companies to manage the safety and environmental risks of their operations but also the ability of industry regulators to exercise adequate and effective oversight. In the United States, major changes in regulatory institutions rapidly followed the occurrence of the Macondo blowout: in May 2010, the Secretary of the Interior ordered the division of the responsible federal regulator, his Department’s Minerals Management Service (MMS), into separate and independent

entities to be responsible for resource management, environmental and safety matters, and royalties and revenue collection.¹ The dispersal of MMS's hitherto comprehensive functions of regulating operations on the United States Continental Shelf, completed in October 2011, involved the creation of an Office of Natural Resources Revenue to collect leasing revenue (cash premiums and royalties); a Bureau of Ocean Energy Management, responsible for resource development and energy management functions, including leasing and planning; and a Bureau of Safety and Environmental Enforcement to enforce safety and environmental regulations.² A key objective of this reform was to eliminate MMS's "conflicting missions of promoting resource development, enforcing safety regulations, and maximizing revenues from offshore operations" and to "separate resource management from safety oversight to allow permitting engineers and inspectors greater independence, more budgetary autonomy and clearer senior leadership focus."³

It is abundantly clear, from inquiries and reports commissioned after the Macondo disaster, that MMS was an under-resourced and ineffective regulator excessively influenced by the industry it was supposed to supervise.⁴ The decision to break the agency up into three separate regulatory bodies

1. Establishment of the Bureau of Ocean Energy Management, the Bureau of Safety and Environmental Enforcement, and the Office of Natural Resources Revenue, U.S. Dep't of the Interior, Secretarial Order No. 3299 (May 19, 2010).

2. *Id.*; *Fact Sheet: The BSEE and BOEM Separation*, U.S. Dep't of the Interior (Jan. 19, 2011), http://www.doi.gov/news/pressreleases/upload/01-19-11_Fact-Sheet-BSEE-BOEM-separation-2.pdf [<http://perma.cc/5AHL-ZCQK>].

3. *The Reorganization of the Former MMS*, BUREAU OF OCEAN ENERGY MGMT., <http://www.boem.gov/Reorganization/> [<http://perma.cc/K3ZA-ZZFY>] (last visited Dec. 17, 2016).

4. *E.g.*, COUNCIL ON ENVTL. QUALITY, REPORT REGARDING THE MINERALS MANAGEMENT SERVICE'S NATIONAL ENVIRONMENTAL POLICY ACT POLICIES, PRACTICES, AND PROCEDURES AS THEY RELATE TO OUTER CONTINENTAL SHELF OIL AND GAS EXPLORATION AND DEVELOPMENT (2010), <https://www.doi.gov/sites/doi.gov/files/migrated/news/pressreleases/upload/CEQ-Report-Reviewing-MMS-OCS-NEPA-Implementation.pdf> [<http://perma.cc/GVB2-R8A5>]; NAT'L COMM'N ON THE BP DEEPWATER HORIZON OIL SPILL & OFFSHORE DRILLING, DEEP WATER: THE GULF OIL DISASTER AND THE FUTURE OF OFFSHORE DRILLING ch. 3 (2011), <https://www.nrt.org/sites/2/files/GPO-OILCOMMISSION.pdf> [<http://perma.cc/C679-JNM8>]; *Minerals Management Service Acted More like Agent than Regulator*, CTR. FOR EFFECTIVE GOV'T (May 18, 2010), <http://www.foreffectivegov.org/node/11000> [<http://perma.cc/HEC2-Y8WP>].

however, reflected not just dissatisfaction with its performance, but also an acceptance of a particular view of appropriate regulatory structures. This view favors regulators with a single well-defined objective and a high degree of independence from other regulators and from policy-makers who may have inconsistent, or potentially inconsistent, objectives. The European Union, the United Kingdom, and Australia have all introduced post-Macondo reforms to offshore regulatory institutions of a broadly similar nature: a process accelerated, in Australia, by the occurrence of an incident (the “Montara” blowout⁵) a few months before Macondo and of a similar but less serious nature.⁶

The structures resulting from these reforms strongly contrast with the structures operative in the early years of offshore development in the North Sea (United Kingdom and Norway), Australia, and the United States. In this paper, our aim is to provide some comparative context for recent U.S. developments⁷ by examining the development of offshore regulation in the United Kingdom, Norway, and Australia over the last half-century, away from the original institutional structures and towards the type of pattern now adopted in the United States. We seek to relate this process to the elaboration of general precepts

5. DAVID BORTHWICK, REPORT OF THE MONTARA COMMISSION OF INQUIRY (2010), <http://www.iadc.org/wp-content/uploads/2016/02/201011-Montara-Report.pdf> [http://perma.cc/5NHQ-FPHX].

6. *Id.* at 5. We have examined this Australian regulatory structure in detail in other writings, trying to assess how the operation of the new institutions differs from that of the old ones three years after it came into effect. See John Chandler & Terence Daintith, *Offshore Petroleum Regulation After Montara: The New Regulatory Architecture*, 33 AUSTL. RESOURCES & ENERGY L.J. 325 (2014) [hereinafter Chandler & Daintith, *Architecture*]; John Chandler & Terence Daintith, *Offshore Petroleum Regulation After Montara: The New Regulatory Style*, 34 AUSTL. RESOURCES & ENERGY L.J. 34 (2015) [hereinafter Chandler & Daintith, *Style*].

7. These developments are now the subject of extensive official and academic literature. *E.g.*, Jacqueline L. Weaver, *Offshore Safety in the Wake of the Macondo Disaster: Business as Usual or Sea Change?*, 36 HOUS. J. INT'L L. 147 (2014) [hereinafter Weaver, *Business as Usual*]; Jacqueline L. Weaver, *Offshore Safety in the Wake of the Macondo Disaster: The Role of the Regulator*, 36 HOUS. J. INT'L L. 379 (2014) [hereinafter Weaver, *Role of the Regulator*]; U.S. CHEM. SAFETY & HAZARD INVESTIGATION BD., MACONDO INVESTIGATION REPORT VOLUME 4: DRILLING RIG EXPLOSION AND FIRE AT THE MACONDO WELL (2016), <http://www.csb.gov/macondo-blowout-and-explosion/> [http://perma.cc/EUD8-EBJJ].

of “good regulation” that has been under way, notably within western governments and in bodies like the Organisation for Economic Co-operation and Development (OECD) and the World Bank, since the 1980s. How influential have these precepts been in recent processes of reform? Do they suggest that the United Kingdom, Norway, and Australia all spent decades practicing “bad” offshore regulation? Have there been other influences or factors (not least the occurrence of disasters like the antecedents of Macondo) shaping the evolution of offshore regulation? And does this evolution suggest any limits to the applicability of current doctrines about “good regulation” to the particular circumstances of offshore oil exploration and production?

We begin by outlining these prescriptions for the good design of regulatory institutions, relating them to the special characteristics of offshore petroleum activity that have borne strongly on governments’ approach to its regulation. We then review the regulatory structures adopted by the United Kingdom, Norway, and Australia at the outset of serious offshore petroleum activity in the 1960s and how those structures developed up to 2010. Next, we look at the responses of these countries and the European Union to the Macondo and Montara incidents. On this basis we attempt to assess how far we have improved regulatory structures in this particular field, what this improvement owes to “good regulation” thinking, and what challenges the post-Macondo architecture of offshore petroleum regulation still has to face.

II. REGULATORY REFORM IN THE 20TH AND 21ST CENTURIES

A. *The OECD and the World Bank*

Regulatory reform has been one of the major preoccupations of the OECD and the World Bank this century. With the former focusing on “western” democracies and the latter addressing the developing world, these bodies have preached a consistent message urging their audiences to engage in regulatory reform as a means of improving economic performance.⁸ These

8. The World Bank publishes a variety of reports on regulatory reform for the general public. *Open Knowledge Repository*, WORLD BANK GRP., <https://openknowledge>.

international efforts, which started in the 1990s, were largely engendered by the drive towards privatization of public utilities and of infrastructure more generally that was widely (though not universally) seen, starting in the 1980s, as the best recipe for more efficient service delivery in both developed and developing nations.⁹ When it became clear that privatization was often not securing the intended results, because state control over privatized entities was often arbitrary or ineffective or both,¹⁰ attention turned towards improving the regulatory structures, procedures, and rules that had replaced direct control over public enterprises.¹¹ Two related notions were seen as important to such improvement: the creation of independent regulators for such entities, and the institutional separation of policy-making and regulatory functions.

B. The Independent Regulator Model

Political influence had been identified as one of the reasons why utilities run by publicly-owned enterprises were less than optimally efficient, and it was posited that this influence might, unless effectively excluded, deter investment in utilities once privatized.¹² The problems of the control of utilities by

worldbank.org/discover?query=regulatory+reform&scope=%2F&submit=Go [http://perma.cc/JE3W-7XH4] (last visited Mar. 15, 2017). Similarly, the OECD also provides a large variety of sources for interested individuals. *Regulatory Reform*, OECD, <https://www.oecd.org/regreform/> [http://perma.cc/XTK3-4HAM] (last visited Mar. 15, 2017).

9. Stilpon Nestor & Ladan Mahboobi, *Privatisation of Public Utilities: The OECD Experience* (Apr. 23, 1999), <https://www.oecd.org/daf/ca/corporategovernanceofstate-ownedenterprises/1929700.pdf> [http://perma.cc/AG2S-KVVY]; Exec. Order No. 12,803, 57 Fed. Reg. 19,063 (May 4, 1992).

10. See Tonci Bakovic et al., *Regulation by Contract: A New Way to Privatize Electricity Distribution* 8-14 (World Bank, Working Paper No. 14, 2003) (suggesting regulation by contract as an alternative to the problematic privatization movement), <http://documents.worldbank.org/curated/en/193741468769519824/pdf/271430PAPER0Regulation0by0contract.pdf> [http://perma.cc/RK78-ZQNX]

11. See generally NICK MALYSHEV, THE EVOLUTION OF REGULATORY POLICY IN OECD COUNTRIES, <https://www.oecd.org/gov/regulatory-policy/41882845.pdf> [http://perma.cc/C48T-2SNQ] (addressing a change toward improving the effectiveness of regulations).

12. Jon Stern & Stuart Holder, *Regulatory Governance: Criteria for Assessing the Performance of Regulatory Systems: An Application to Infrastructure Industries in the Developing Countries of Asia*, 8 UTIL. POL'Y 33, 34, 36-37 (1999).

politically-responsible government departments have been described as follows:

In many cases, the line Ministry may have the responsibility but little power. De facto, the utilities often dominate the line Ministries and achieve a substantial degree of regulatory capture . . . In other cases, the line Ministry may be the agent of political decisions made by figures central in the political structure (e.g. the Presidential office).

The most obvious point about such regulatory systems is their *opaqueness*. The three main functions affecting infrastructure enterprises:

- policy making;
- ownership and management;
- regulation. [sic]

are carried out by the same agency(ies) and are not functionally distinguished. Hence, the process of regulation tends to become a shifting set of negotiations between the players. Regulation, and end-user pricing in particular, tends to become highly politicised.¹³

Such considerations led to a widespread preference for the regulation of privatized utilities by “independent” regulators with their own legislative mandate, reflecting the American model of the independent regulatory commission in varying degrees. The United Kingdom and Australia offer early and largely successful examples of this type.¹⁴ In many countries, however, the degree of independence enjoyed in practice by the regulator left much to be desired.¹⁵ This led Stern and Holder to argue that the crucial starting point in the design of an independent regulator was clarity of roles and objectives between Minister, regulator, and regulated enterprise, implying a separation of regulation from

13. *Id.* at 36.

14. For an examination of the United Kingdom’s regulation of privatized industries, see TONY PROSSER, *LAW AND THE REGULATORS* (1997). For an examination of the reforms to increase and make more effective public utilities in Australia, see STEPHEN KING & RODNEY MADDOCK, *UNLOCKING THE INFRASTRUCTURE: THE REFORM OF PUBLIC UTILITIES IN AUSTRALIA* (1996); Malcolm Abbott & Bruce Cohen, *A Survey of the Privatisation of Government-Owned Enterprises in Australia Since the 1980s*, 47 *AUSTL. ECON. REV.* 432, 435-36, 444-47 (2014).

15. Stern & Holder, *supra* note 12, at 34.

both policy-making and the commercial management of the enterprise.¹⁶ More recently the OECD has taken this preference for clarity of roles further by suggesting that independent regulators should not be assigned conflicting or competing functions or roles, arguing that single-purpose regulators are preferable and that special circumstances are needed to justify the creation or maintenance of multi-function or -purpose regulators.¹⁷

C. Separation of Policy-Making and Regulatory Functions

This type of thinking is closely linked with a second line of institutional development, exemplified for Anglophone countries by the “Next Steps” program instituted in the United Kingdom in 1988 for the reorganization of government departments.¹⁸ This program sought to separate the policy development and advice functions from the policy execution and service delivery functions within departments.¹⁹ The latter functions were entrusted to “executive agencies,” each headed by a chief executive with delegated responsibility for day-to-day matters within a framework of policy objectives and resources set by the responsible Minister.²⁰ Since that time, such agencies have proliferated and now perform functions ranging from the running of prisons to driver and vehicle licensing.²¹ The model has had some influence in other parts of the (British) Commonwealth, notably in Australia.²² The agencies are not designed to be

16. *Id.* at 43; accord ASHLEY C. BROWN ET AL., HANDBOOK FOR EVALUATING INFRASTRUCTURE REGULATORY SYSTEMS 61, 65-66 (2006).

17. ORG. FOR ECON. CO-OPERATION & DEV., OECD BEST PRACTICE PRINCIPLES FOR REGULATORY POLICY: THE GOVERNANCE OF REGULATORS 29, 33-38 (2014).

18. TERENCE DAINTITH & ALAN PAGE, THE EXECUTIVE IN THE CONSTITUTION: STRUCTURE, AUTONOMY, AND INTERNAL CONTROL 37-46 (1999).

19. *Id.* at 37-38.

20. *Id.* at 38-39; AGENCIES & PUBLIC BODIES TEAM, EXECUTIVE AGENCIES: A GUIDE FOR DEPARTMENTS 14-16 (2006), https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/80076/exec_agencies_guidance_oct06_0.pdf [<http://perma.cc/5SDN-G8DW>].

21. For a list of all existing executive agencies listed by reference to their sponsoring department, see *Departments, Agencies and Public Bodies*, GOV.UK, <https://www.gov.uk/government/organisations> [<http://perma.cc/MU5Q-6XS4>] (last visited Dec. 17, 2016).

22. For a similar list of executive agencies in Australia, see *List of Departments and*

independent bodies, as they sit within ministerial departments, but are intended to secure more efficient administration by structuring service delivery functions on a more business-like pattern at least in part by breaking the traditional chain of political ministerial responsibility for all actions taken in a department, no matter how minor or routine.²³

By following the “Next Steps” process the United Kingdom aligned itself more closely with countries with a much longer history of separation of policy and administration, reflecting the fact that the political responsibility of Ministers to Parliament has played a less central role in the control of the executive. For example, in Sweden, the principle of “administrative dualism” describes the long-standing separation of the small policy-making departments of the central government from the myriad agencies actually managing government functions and subject only to policy direction from the center.²⁴ Norway’s approach has been broadly similar to Sweden’s.²⁵ Another approach is offered by the presidential system of the United States, where “executive agencies,” which may exist within a department headed by a cabinet officer (like the Department of Interior) or outside such a department, are distinguished from “independent agencies,” where the President has much more limited powers.²⁶ These

Agencies, AUSTRALIAN GOV’T, <http://www.australia.gov.au/about-government/departments-and-agencies/list-of-departments-and-agencies> [<http://perma.cc/NF78-XQB6>] (last visited Dec. 17, 2016). Examples of bodies analogous to executive agencies whose activities are relevant to this discussion include Geoscience Australia and the National Offshore Petroleum Titles Administrator, both of which are part of the Department of Industry, Innovation and Science. *Organisational Chart January 2017*, DEP’T OF INDUSTRY, INNOVATION & SCIENCE (2017), <https://industry.gov.au/AboutUs/Documents/DepartmentalOrganisationChart.pdf> [<http://perma.cc/RW5C-DQYP>].

23. DAINTITH & PAGE, *supra* note 18, at 39-42.

24. Niklas Eklund, *Administrative Reform in Sweden: Administrative Dualism at the Crossroad*, in HANDBOOK OF ADMINISTRATIVE REFORM: AN INTERNATIONAL PERSPECTIVE 115, 117-18 (Jerri Killian & Niklas Eklund eds., 2008).

25. See Paul Roness, *Types of State Organizations: Arguments, Doctrines and Changes Beyond New Public Management*, in TRANSCENDING NEW PUBLIC MANAGEMENT: THE TRANSFORMATION OF PUBLIC SECTOR REFORMS 65, 76-79 (Tom Christensen & Per Lægred eds., 2007).

26. Saskia Lavrijssen, *An Analysis of the Constitutional Position of the US Independent Agencies*, in INDEPENDENT ADMINISTRATIVE AUTHORITIES 1, 3-8 (Roberto Caranta et al. eds., 2004). The Securities and Exchange Commission is one example of an

agencies, and indeed some of the United Kingdom's "Next Steps" agencies, are not necessarily confined to service delivery functions: they may have regulatory responsibilities, and some of the Swedish agencies are in fact specialized courts and tribunals.

These two lines of thought came together in the Australian Productivity Commission's 2009 recommendations for reform of the framework of oil and gas regulation in its inquiry into the regulatory burden on the upstream petroleum sector.²⁷ The Commission enthusiastically adopted and combined the independent regulator concept and the separation of policy and regulation, claiming that "the credibility and effectiveness of regulation can potentially be improved through establishing a structural separation between policy development and regulatory administration," by creating an independent regulator charged with implementing regulatory policies developed by the department and its Ministers.²⁸ This prescription seems to be widely accepted within the government in Australia, at least at the national level.²⁹ In the public utilities sector it has been taken to considerable lengths: the regulatory structure for the so-called national gas and electricity markets, which cover five States in the south and east of Australia, involves a Ministerial Council to develop policies, an independent commission (the Australian Energy Markets Commission) to review and modify market rules made in accordance with those policies, and an independent regulator (the Australian Energy Regulator) to apply those rules.³⁰ One of the questions to be addressed here is whether the prescription can be extended as readily as the Commission

independent agency.

27. PRODUCTIVITY COMM'N, REVIEW OF REGULATORY BURDEN ON THE UPSTREAM PETROLEUM (OIL AND GAS) SECTOR 232-35 (2009) [hereinafter REGULATORY BURDEN REVIEW].

28. *Id.* at 232.

29. This prescription has not been universally accepted across State governments, South Australia in particular. Chandler & Daintith, *Architecture*, *supra* note 6, at 337-38.

30. KMPG, NATIONAL ELECTRICITY MARKET: A CASE-STUDY IN SUCCESSFUL MICROECONOMIC REFORM 38, 41-42 (2013), <http://www.aemc.gov.au/getattachment/8c426f7d-ea5c-4823-9b86-510dfd4e82dd/The-National-Electricity-Market-A-case-study-in-mi.aspx> [<http://perma.cc/K9BK-DC9S>]; AUSTRALIAN ENERGY MKT. OPERATOR, AN INTRODUCTION TO AUSTRALIA'S NATIONAL ELECTRICITY MARKET 4 (2010), http://www.abc.net.au/mediawatch/transcripts/1234_aemo2.pdf [<http://perma.cc/XH7H-LNBD>].

assumes to address issues outside the public utility sector. It also needs to be seen in the context of how effectively the government is achieving two of the other principles the Commission refers to as being advocated in the United Kingdom:

- ministers accepting overall responsibility and accountability for regulatory policy and associated regulatory framework, including the setting of environmental and social standards
- a whole-of-government perspective being used to coordinate roles played by different [parts] of a regulatory regime.³¹

D. An Alternative Model: The Concession System

The OECD and the World Bank have been more cautious than the Productivity Commission in their appraisal of the independent regulator model. While the OECD has affirmed that independent regulators represent an important improvement over line ministries lacking clear mandates for consumer welfare and has recognized that the phenomenon is no longer confined to the field of privatized public utilities, it has also drawn attention to numerous risks regarding such regulators: that they may not be immune to regulatory capture, they may slow structural change, they may pose problems of democratic accountability, and they may contribute to the fragmentation of government policy.³² For its part, the World Bank has noted that independent regulator systems will not be appropriate for all countries and has identified the French system of concessions for hydropower provision as an example of an alternative style.³³

Under such a concession, the behavior (including the pricing and supply behavior) of the provider is regulated by the terms of the concession contract through which the responsible authority also grants both the monopoly right to supply and the necessary use of its own assets for this purpose.³⁴ This concession device,

31. REGULATORY BURDEN REVIEW, *supra* note 27, at 232.

32. ORG. FOR ECON. CO-OPERATION & DEV., REGULATORY POLICIES IN OECD COUNTRIES: FROM INTERVENTIONISM TO REGULATORY GOVERNANCE 95-96 (2002).

33. BROWN ET AL., *supra* note 16, at 338-40.

34. Pierre Guislain & Michel Kerf, *Concessions—The Way to Privatize Infrastructure Sector Monopolies*, PUB. POLY FOR PRIV. SECTOR, Note No. 59, Oct. 1995.

which was for centuries the principal mechanism in France for the delivery of public services and other projects of public interest,³⁵ has the contractual grant of typically exclusive access to public property for a period of time as its essential feature.³⁶ While this may pertain to tangible property such as railway tracks, electricity poles and wires, rivers, lakes, and dams, concessions can also be founded on the intangible public property represented by a constitutional or legislative reservation to the state or another public authority of the right to engage in a particular activity.³⁷ Seen in this light, the concession contract may represent an alternative to a scheme of statutory regulation of a privatized utility administered by an independent regulator: even if the state has transferred all of its operational assets to private companies, it may still retain—and then contractually concede—its exclusive legal privilege.³⁸

Like the independent regulator arrangements that have more commonly followed the privatization of public utilities, the focus of the public service concession is on the economic aspects of utility provision: prices to be charged, services to be provided, investments to be made, fees to be paid, or subsidies to be received.³⁹ Control of this economic relationship, whether through a concession or a specialized scheme of regulation, will therefore form only part of the utility enterprise's overall regulatory environment.⁴⁰ Additionally, the relationship will be subject to the varied controls, exercised by the relevant functional agencies, through which the state protects its citizens from the risks of harm that might ordinarily accompany industrial and commercial

35. *Id.*

36. *Id.*

37. *Id.*

38. One such example is the UK railway system, which was privatized in 1993, but had passenger train services provided through concessions (franchises) that were granted by the government. Louise Butcher, *Passenger Rail Services*, HOUSE OF COMMONS LIBRARY, Briefing Paper No. SN06521, at 4-5 (Mar. 14, 2016), <http://researchbriefings.parliament.uk/ResearchBriefing/Summary/SN06521> [<http://perma.cc/6PDD-VPP8>].

39. See BROWN ET AL., *supra* note 16, at 52-53 (observing that the public service concession works best in a limited set of circumstances and should focus on single entities rather than many different entities interacting with each other).

40. *Id.* at 53-54.

activities.⁴¹ Such regulatory legislation, typically in the fields of corporate, consumer, environmental, and health and safety law, will here be referred to in general terms, following the American terminology of “police powers” as “police” regulation.⁴² Conflicts may well arise between the demands that police regulation and economic regulation make of a regulated enterprise, but generally the fact that the economic regulation of the enterprise takes the form of a concession regime, as opposed to a statutory scheme, does not affect the way such conflicts will be resolved.

The concession regime was taken up in various countries in the 19th century to manage privately-run natural monopolies in the public interest by substituting competition *for* the market (by bidding for the concession contract) for the competition *within* the market that might have taken place in the absence of natural monopoly.⁴³ The more optimistic proponents of this approach suggest that a comprehensive concession contract should be self-administering if its service and tariff parameters are correctly drawn.⁴⁴ However, according to the World Bank, attempts to make concession contracts function as “regulation without a regulator” have generally produced too much rigidity and have in most cases been supplanted at some point by hybrid systems involving both concession contracts and some role for an independent regulator,⁴⁵ or by dropping the contract concept altogether.⁴⁶

41. *Id.*

42. Freund defined police power as “the power of promoting the public welfare by restraining and regulating the use of liberty and property.” ERNST FREUND, *THE POLICE POWER: PUBLIC POLICY AND CONSTITUTIONAL RIGHTS* iii (1904).

43. The pioneer of this line of thought was Edwin Chadwick, who addressed the impact of concessions and privatization on natural monopolies and the importance of competition. Edwin Chadwick, *Results of Different Principles of Legislation and Administration in Europe; of Competition for the Field, as Compared with Competition Within the Field of Service*, 22 J. STAT. SOC'Y LONDON 381 (1859). For a look at early concessions in countries around the world, see Michel Kerf et al, *Concessions for Infrastructure: A Guide to Their Design and Award* 1-3 (World Bank, Technical Paper No. 399, 1998).

44. *E.g.*, Harold Demsetz, *Why Regulate Utilities?*, 11 J.L. & ECON. 55 (1968); Jon Stern, *The Relationship Between Regulation and Contracts in Infrastructure Industries: Regulation as Ordered Renegotiation*, 6 REG. & GOVERNANCE 474, 477-79 (2012).

45. Bakovic et al., *supra* note 10, at 74-76.

46. BROWN ET AL., *supra* note 16, at 110-20, app. H.

E. The Development of Principles of Good Regulation

Privatization may be seen as the strongest single driver of the regulatory reform movement, but in OECD countries, like those under examination here, the interest in better regulation quickly spread beyond the particular context of regulation of privatized utilities and other monopoly situations. For example, starting in 1985, the United Kingdom began developing a comprehensive program for reducing regulatory burdens, particularly on small business.⁴⁷ Under a Labour Government in 1997, the emphasis on deregulation continued, marked by a switch from deregulation to “better” regulation by reference to general principles and procedures which today form the common currency of regulatory reform discussion.⁴⁸ Australia followed a somewhat similar course. In 1993 the report on National Competition Policy noted the Commonwealth had adopted a policy of “minimum effective regulation” applied by the Office of Regulation Review.⁴⁹ This required proponents of new regulation to demonstrate that their proposals addressed real problems, that non-regulatory alternatives had been considered, and that the expected benefits of the regulation outweighed the costs.⁵⁰ This more general view of regulation was summarized in the OECD’s 1995 *Recommendation on Improving the Quality of Government Regulation*, which stated that regulations should:

- (i) be needed to serve clearly identified policy goals, and effective in achieving those goals; (ii) have a sound legal basis; (iii) produce benefits that justify costs, considering the distribution of effects across society; (iv) minimise costs and market distortions; (v) promote innovation through market incentives and goal-based approaches; (vi) be clear, simple, and practical for users; (vii) be consistent with other regulations and policies; and (viii) be compatible as far as possible with competition, trade and investment-facilitating principles at domestic

47. Robert Baldwin, *Is Better Regulation Smarter Regulation?*, PUB. L., Autumn 2005, at 485, 485-86.

48. *Id.* at 485-86, 494.

49. FREDERICK G. HILMER ET AL., NATIONAL COMPETITION POLICY REVIEW 201 (1993).

50. *Id.* at 201-02.

and international levels.⁵¹

The economic heritage and purpose of these principles for good regulation is highlighted by the fact that half of them—(iii), (iv), (v), and (viii)—have a major economic element. This balance may reflect a sound common sense approach to the drafting of legislation. While the principles make no explicit reference to institutional design, they clearly provide a template against which the performance of any given institutions might be tested.

III. THE SPECIAL CHARACTERISTICS OF THE OFFSHORE PETROLEUM INDUSTRY AND ITS REGULATION

A. *The Traditional Oil Concession: Its Replacement and Modification*

The identification of the independent regulator and the concession contract as alternative regulatory models that can stand alone or be combined in a variety of ways is of central relevance to our theme, because the concession was from the earliest years of the oil and gas industry, the means by which states claiming ownership of petroleum deposits on their territory secured their discovery and exploitation by private companies.⁵² Like the previously discussed public service concessions, the petroleum concession both grants to the concessionaire the exclusive right of access to public assets, and controls, in the public interest, the activity that this right of access permits.⁵³ The public service concession, however, only permits the use of public assets for the period of the concession, after which they revert back to the public authority, while the petroleum concession contemplates the definitive transfer to the concessionaire of the ownership of any petroleum produced, usually in return for the

51. ORG. FOR ECON. CO-OPERATION AND DEV., THE OECD REPORT ON REGULATORY REFORM: SYNTHESIS 27-28 (1997).

52. Ernest E. Smith, *From Concessions to Service Contracts*, 27 TULSA L.J. 493, 493 (1991). Private landowners in the United States continue to hold title to the oil in their lands under the common law accession system, and some private oil rights also survive in Canada and Trinidad. *Id.* at 494. Of the early producers of oil and gas outside the United States, Austria-Hungary, Romania, and Burma all had private ownership systems at least until the end of the 19th century. TERENCE DAINITH, *FINDERS KEEPERS? HOW THE LAW OF CAPTURE SHAPED THE WORLD OIL INDUSTRY* ch. 6 (2010).

53. Smith, *supra* note 52, at 499-501, 505.

payment of a royalty.⁵⁴ At the same time risk is transferred to the concessionaire, which must spend its own money on exploration and development and only receives a return if it finds and produces petroleum profitably.⁵⁵ For its part, the state benefits from the tax and royalty payable by the concessionaire, from the employment and other commercial opportunities created, and from the improvement of its energy security.⁵⁶

The early concessions—granted by oil-rich but undeveloped countries in Latin America, the Middle East, and southeast Asia—covered enormous areas of territory, and, unlike the contemporary conception of public service concessions, were conceived as stand-alone regimes that would cover all aspects—not just economic aspects—of the concessionaire’s relationship with the country in which it was working.⁵⁷ Concessions were structured to insulate the concessionaire’s operations from the impact of developments in the country’s general law, which were very poorly developed in areas like police regulation when concessions were concluded.⁵⁸ By the 1960s, when offshore development began in earnest in the countries discussed in this article, State dissatisfaction with the unbalanced character of such concessions led to their replacement by other forms of contract, which were designed to ensure greater continuing control for the host state and to negate claims that national assets in the form of oil and gas resources were being granted away to multinational oil companies.⁵⁹ OECD countries, however, preferred to retain the essential characteristics of the concession but modernize it by greatly reducing the areas over which exclusive rights would be granted to any company or consortium and installing much tighter controls of company activity, while at the same time abandoning any notion that the concession might create a barrier to the operation of the general law of the

54. *Id.* at 501, 509-10. In its sovereign, as opposed to its proprietary capacity, the state may of course also obtain financial rewards through profit or other taxes. *Id.* at 512-13.

55. *Id.* at 509-10, 512-13.

56. *Id.*

57. ERNEST SMITH ET AL., MATERIALS ON INTERNATIONAL PETROLEUM TRANSACTIONS 429-432 (2010).

58. *Id.* at 430.

59. *Id.* at 437; Smith, *supra* note 52, at 513-14.

country.⁶⁰

The United Kingdom and Norway, like the United States, adopted at the outset a modern version of the concession contract as the primary apparatus for regulation of offshore exploration and production activity whose basis was the property rights in the petroleum resource *in situ* held by the state.⁶¹ Australian offshore regulation was organized on the same economic principles,⁶² but looked—legally—very different because, for reasons explained later, it was cast in the form of administrative authorizations under a comprehensive regulatory statute.⁶³

B. The Offshore Factor

In addition to the general differences that distinguish petroleum concessions from public service concessions, the concession-type arrangements made in the 1960s in the United Kingdom, Norway, and Australia also differ in *scope*. Like public service concessions, their primary concern was the *economic* relationship between the state and the oil company as concessionaire: the areas within which the company might explore and (if fortunate) produce; the arrangements (e.g., bidding, discretionary grants) under which it would get access to such areas; the exploration commitments it would make; controls over production facilities, rates, methods, and periods; measurement of petroleum produced; and payments to the state in the form of fees and royalties.⁶⁴ However, a particular feature of modern petroleum development in these countries meant that their initial concession arrangements also contained important elements of police regulation, because the relevant petroleum discoveries took place on the continental shelf, outside the

60. SMITH ET AL., *supra* note 57, at 435-39.

61. Terence Daintith & Ian Gault, *Pacta Sunt Servanda and the Licensing and Taxation of North Sea Oil Production*, 8 *CAMBRIAN L. REV.* 27, 28 (1977).

62. These economic principles include the exclusive rights of exploration and production in defined areas, at the entire risk of the title-holder, paid for by royalties on production which became the property of the producer.

63. *Petroleum (Submerged Lands) Act 1967* (Cth) (Austl.), repealed by *Offshore Petroleum and Greenhouse Gas Storage Act 2006* (Cth) (Austl.); see *infra* Section VI.A.

64. See Daintith & Gault, *supra* note 61, at 29-31 (detailing the various facets of the economic relationship between states and the oil companies on which the state was primarily focused).

national territory.⁶⁵ This introduced basic uncertainties about what elements of domestic law, if any, might be available and appropriate, and how they might be applied to address the “non-economic” risks of exploring for and producing oil and gas in these unfamiliar, hostile, and extra-territorial environments.⁶⁶ Hence, at least in the first years of activity on the United Kingdom, Australian, and Norwegian continental shelves, there was a considerable degree of reliance on the concession as the vehicle not only of economic but also of police regulation.⁶⁷

If both types of regulatory power are exercised by the same authority, the problem of conflicting regulatory goals identified by the “good regulation” literature previously discussed may emerge.⁶⁸ Vigorous pursuit of policing objectives might be seen as placing obstacles in the way of the achievement of economic goals—of early and successful exploration, and subsequent rapid and intensive production—that the state, as resource owner, shares with its concessionaires, by adding costs that may render the recovery of oil and gas less attractive or even uneconomic, or by imposing restrictions that may make it physically impossible.

In the following sections we examine how offshore regulation has developed from this rather idiosyncratic starting point, starting with the North Sea jurisdictions of the United Kingdom and Norway and then in Australia, until the time of the shock provoked by the Macondo and Montara incidents and then by way of reaction to them. While the core concession concept has been heavily modified by the addition of statutory regulation involving the independent regulator device, it retains some utility, and continues to have an important influence on the way in which general regulatory precepts can be applied in this area.

65. *Id.* at 28-29 (explaining that, in the time before international agreements regarding the regulation of extraterritorial petroleum operations came into being, the countries’ initial arrangements implemented police functions so as to avoid “disorder and waste”).

66. Tina Hunter, *Comparative Law as an Instrument in Transnational Law: The Example of Petroleum Regulation*, 21 BOND L. REV. 42, 46-47 (2009).

67. Daintith & Gault, *supra* note 61, at 31-32.

68. *See supra* Section II.E.

IV. THE UNITED KINGDOM EXPERIENCE IN THE NORTH SEA

A. *1964: The Initial Approach: The Onshore Concession Scheme Applied Offshore*

When it was discovered at the beginning of the 1960s that the giant Groningen gas field extended from the Netherlands offshore under the North Sea and that the United Kingdom was likely also to possess extensive offshore gas reserves, the government chose a minimalist regulatory approach. To the fullest extent possible, the matter would be dealt with through the adaptation and extension of existing law. The principal law involved was the Petroleum (Production) Act 1934, under which onshore oil and gas exploration and production had been managed under a concessionary system by granting exclusive “mining licences,” taking the form of contracts between the responsible Minister and the licensee.⁶⁹ Model clauses, to be included in all such licenses, were promulgated by regulations, and covered both the economic interests of the state (through clauses on matters such as royalties, keeping of accounts, and measurement and disposal of petroleum) and well as the exercise of its police power (through clauses regulating how operations were carried out, so as to avoid waste and pollution; and requiring licensees to protect the health and safety of workers).⁷⁰

The Continental Shelf Act 1964, which asserted United Kingdom rights over the continental shelf,⁷¹ simply extended this system to the offshore. A new set of model clauses was promulgated for offshore use, again dealing with both the state’s economic interests (through more demanding obligations on matters like relinquishment of territory and payment of royalties) and its police powers (through provisions broadly on the same lines as the landward clauses while recognizing specific offshore risks, like interference with fishing).⁷² The Act specifically

69. Petroleum (Production) Act 1934, 24 & 25 Geo. 5 c. 36, § 2 (Gr. Brit.).

70. *Id.* §§ 2-3. For the current text, see Petroleum (Current Model Clauses) Order 1999, SI 1999/160, sch. 1, part 2 (UK). The health and safety clause was removed by the Offshore Safety Act 1992, c. 15, § 3(2)(b) (Gr. Brit.) as part of the transfer of health and safety responsibilities to the Health and Safety Executive. See *infra* Section IV.D.

71. Continental Shelf Act 1964, c. 29, § 1(3) (UK).

72. Petroleum (Production) (Continental Shelf and Territorial Sea) Regulations

required the insertion of a health and safety clause in the license.⁷³ Outside of the license, the only significant controls imposed by the Act to cope with the special problems of offshore petroleum operations were controls on the placing of offshore installations and their protection from collisions, and the creation of an offense of oil pollution from offshore installations and pipelines.⁷⁴ Otherwise, the extension of the general criminal and civil law of England or Scotland, as appropriate, to cover offshore activities was considered sufficient.⁷⁵ While that law included the general regulation of occupational safety provided by the Factories Acts, it was doubtful whether the extension mechanism contained in the Continental Shelf Act could make such statutory provisions applicable offshore, framed as they were for onshore use and limited in their scope to the territory of the United Kingdom.⁷⁶ In fact, initial safety regulation consisted of a letter from the Minister of Power to licensees instructing them to operate in accordance with relevant provisions of the Institute of Petroleum Model Code of Safe Practice in the Petroleum Industry, issued in October 1964.⁷⁷

B. 1965: The Sea Gem Disaster and the First Health and Safety Regulations

The inadequacy of relying on industry self-regulation within the framework of a contractual concession to secure offshore safety was quickly and tragically demonstrated when the jack-up drilling rig *Sea Gem* collapsed and sank in December 1965 while drilling the West Sole field, the first commercial gas field

1964, SI 1964/708, schs. 2-3 (UK). The clauses, as codified with subsequent amendments, can be found in the Petroleum (Current Model Clauses) Order 1999, SI 1999/160. The health and safety clause was removed by the Offshore Safety Act 1992, § 3(2), sch. 1, as part of the transfer of health and safety responsibilities to the Health and Safety Executive. See *infra* Section IV.D.

73. Continental Shelf Act 1964, § 1(4).

74. *Id.* §§ 2, 4-5 (establishing powers aimed at preventing navigation dangers, and detailing the offense and punishment for violation of pollution regulations).

75. *Id.* § 3.

76. *Id.* § 1(4), (6); Factories Act 1961, 9 & 10 Eliz. 2 c. 34, pt. II (Gr. Brit.).

77. MINISTRY OF POWER, REPORT OF THE INQUIRY INTO THE CAUSES OF THE ACCIDENT TO THE DRILLING RIG SEA GEM, 1967, Cmnd. 3409, ¶ 6.2 (UK).

discovered in the United Kingdom sector of the North Sea.⁷⁸ Despite the provisions of the Continental Shelf Act, all involved appeared to assume that there was no applicable statutory regulation of health and safety.⁷⁹ A non-statutory inquiry was organized, whose report noted that “the only sanction for ensuring the proper operation of the safety procedures is the revocation of the licence. There are no penal sanctions which can be invoked by anybody in this regard.”⁸⁰ Accordingly, the inquiry recommended the enactment of a statutory code to regulate offshore drilling, proposing an approach to its design that drew heavily on the Merchant Shipping Acts.⁸¹ It found that “the structure and layout of the [Institute of Petroleum’s Model Code of Practice] are not apt to make it clear and authoritative as a piece of quasi-legislation.”⁸²

The acceptance of the Inquiry’s recommendations, in the form of the Mineral Workings (Offshore Installations) Act 1971, marked the United Kingdom’s first step away from the “pure” concessionary model of offshore petroleum regulation.⁸³ Henceforward the license was of limited relevance to health and safety matters, although the health and safety clause remained in licenses until removed by statute in 1992.⁸⁴ At the same time, explicit reliance on industry self-regulation was replaced by a commitment to detailed official prescription of safety requirements and procedures, though the 1971 Act was designed to secure some flexibility by placing the detailed rules in

78. *Id.* ¶ 3.1

79. *Id.* at 2. Powers to hold a statutory inquiry existed under the Factories Act 1961, § 84, but the rig did not fall within the definition of a factory, *id.* § 175, or under the Merchant Shipping Act 1894, 57 & 58 Vict. c. 60 (UK). It may have been assumed that the rig was not a ship because, at least at the time of the incident, it was not “used in navigation,” as required by the Merchant Shipping Act 1894, § 742.

80. MINISTRY OF POWER, *supra* note 77, at 2.

81. *Id.* ¶ 10(2).

82. *Id.* ¶ 8(2).

83. Mineral Workings (Offshore Installations) Act 1971, c. 61 (UK); John Paterson, *The Significance of Regulatory Orientation in Occupational Health and Safety Offshore*, 38 B.C. ENVTL. AFF. L. REV. 369, 388 (2011).

84. Offshore Safety Act 1992, c. 15, § 3(2), sch. 1 (Gr. Brit.). The time taken to put all the regulations envisaged by the 1971 Act into place doubtless gave the clause some “backstop” value. *See* Paterson, *supra* note 83, at 374-75 (detailing the numerous statutory instruments introduced from 1972-1980).

regulations rather than in the Act itself.

An approach through detailed formal regulation clearly entailed the development of official expertise in the field of offshore petroleum operations, and this was provided through a Petroleum Inspectorate, later constituted as part of a Petroleum Engineering Division within the Department of Energy. That Department was created in 1974 and was the fourth ministerial department to have responsibility for petroleum, and energy in general, since the commencement of offshore activity in 1964.⁸⁵ The Department was also responsible for the operation of the petroleum licensing system, so that, despite the creation of the new unit, there was no institutional separation between the government's economic and police functions, and no apparent consideration, during the preparation of the 1971 Act, of the merits of having an independent safety regulator.⁸⁶

C. 1972: The Robens Report and the Reform of Occupational Health and Safety Regulation

Almost simultaneously, however, the United Kingdom's general approach to occupational health and safety policy was subjected to critical review. In 1972, a government inquiry chaired by Lord Robens recommended a move away from the detailed prescriptive regulations in force under the Factories Acts (and in course of development for the offshore under the 1971 Act) in favor of laying down general duties and standards, demanding a more self-regulatory approach by industry in collaboration with workers, developing safety systems, and simplifying the administrative structure.⁸⁷ These radical proposals were accepted by the government and enacted through the Health and Safety at

85. See Paterson, *supra* note 83, at 375. The predecessors of the Department of Energy were the Ministry of Power (until 1969); the Ministry of Technology (1969-1970); and the Department of Trade and Industry (1970-1974). *The Department of Energy 1974-1992*, NAT'L ARCHIVES (Apr. 6, 2007), <http://webarchive.nationalarchives.gov.uk/20070603164510/http://www.dti.gov.uk/about/aboutus/history/outlines/The%20Department%20of%20Energy%201974%20-%201992/page24456.html> [<http://perma.cc/6UTV-HNGA>].

86. Paterson, *supra* note 83, at 375.

87. COMMITTEE ON SAFETY AND HEALTH AT WORK, REPORT OF THE COMMITTEE 1970-72, 1972, Cmnd. 5034, ¶¶ 98-100, 110-15 (UK).

Work etc. Act 1974, which set up two new statutory bodies: a Health and Safety Commission (HSC), which included industry and labor representatives, responsible for implementing and developing the proposals through policy advice and development functions; and, as its executive arm, a Health and Safety Executive (HSE), charged with enforcement of the Act.⁸⁸ One effect of the Act was thus to secure a degree of detachment of general occupational health and safety regulation from the political process, though the responsible Minister⁸⁹ continued to have the task of promulgating regulations under the Act (with the advice of the Commission), and had power to direct the Commission—and through it the Executive—as to the exercise of their functions.⁹⁰

The clear tension between this approach and the approach adopted for the offshore petroleum industry under the 1971 Act became a matter of practical concern for the offshore industry when the general safety duties imposed by the 1974 Act were extended offshore in 1977, giving the HSC an offshore regulatory jurisdiction.⁹¹ To avoid the confusion that might follow from having two different authorities, responsible to different Ministers, applying two different regulatory philosophies to offshore operations, the Department took on the role of an agent of the HSC in relation to occupational health and safety while retaining its other regulatory functions in fields like structural safety, drilling standards, diving, and so on.⁹² While this arrangement did not bring all regulatory functions under one departmental roof—the Department of Trade, for example,

88. Health and Safety at Work etc. Act 1974, c. 37, §§ 10-14 (Gr. Brit.). The two bodies and their functions were merged in 2008, under the Health and Safety Executive, with the functions of the Commission taken over by a nonexecutive Board of HSE. Legislative Reform (Health and Safety Executive) Order 2008, SI 2008/960, §§ 2-5.

89. This is now the Secretary of State for Work and Pensions. *Sec'y of State for Work and Pensions*, GOV.UK, <https://www.gov.uk/government/ministers/secretary-of-state-for-work-and-pensions> [http://perma.cc/JZK8-6MTT] (last visited Dec. 17, 2016).

90. Health and Safety at Work etc. Act 1974, § 10(2).

91. Health and Safety at Work etc. Act 1974 (Application outside Great Britain) Order 1977, SI 1977/1232, art. 4, ¶ 1 (UK), revoked by Health and Safety at Work etc. Act 1974 (Application outside Great Britain) Order 2013, SI 2013/240 (UK).

92. Health and Safety at Work etc. Act 1974, §§ 11, 13-17.

continued to be responsible for maritime safety aspects⁹³—it clearly reflected a preference for unified administration of economic and police aspects of regulation of the industry as against their separation in the hands of bodies with specialized concerns.

Unified administration was the preference of the industry itself and was endorsed by a committee of inquiry into offshore safety (the Burgoyne Committee) in 1980,⁹⁴ despite strong objection from the trade union members of the Committee based on “the principle that a Government Department substantially responsible for the direction and control of an industry should not in any way be responsible for the standards and enforcement of occupational health and safety in that industry.”⁹⁵ They went on to contrast the relative independence inherited by the HSC as the successor of the long-established and highly regarded Factories Inspectorate with the Department’s concern to encourage rapid exploration and development of the North Sea, which meant that “members of the Petroleum Engineering Division may experience conflicting pressure emanating from the exigencies of production on the one hand and from the requirements of safety on the other.”⁹⁶ While acknowledging these points, the majority of the Committee clearly felt that by reason of the unique character of the industry, operational control and safety were inseparable.⁹⁷

D. 1988: The Piper Alpha Disaster and its Regulatory Consequences

It took another major disaster, and a comprehensive and highly critical review of safety regulation and its implementation by the subsequent inquiry, to displace this belief. The destruction of the Piper Alpha production platform by a series of explosions and fires on the evening of July 6, 1988 claimed the lives of 167

93. See HEALTH & SAFETY COMM’N, THE HEALTH AND SAFETY SYSTEM IN GREAT BRITAIN 7 (2002) (observing the Department of Trade and Industry’s responsibility for safety aspects and barriers to trade).

94. DEPARTMENT OF ENERGY, OFFSHORE SAFETY: REPORT OF THE COMMITTEE, Cmnd. 7866, ¶ 6.5 (1980) (UK).

95. *Id.*, Note of Dissent, ¶ 3.

96. *Id.*, Note of Dissent, ¶ 6.

97. *Id.* ¶ 4.12.

persons, the highest death toll in any accident in the history of offshore operations.⁹⁸ The report of the subsequent inquiry, conducted by Lord Cullen, a member of the Scottish judiciary, and presented to Parliament in November 1990,⁹⁹ recommended a radical revision of offshore safety law and philosophy founded on the principles and mechanisms propounded by the Robens Report and subsequently implemented in relation to complex high-risk onshore industrial processes by the Control of Industrial Major Accident Hazard (CIMAH) Regulations.¹⁰⁰ This revision involved replacing the 1971 Act and existing regulations with new legislation setting broad goals for different areas of offshore safety and placing primary responsibility for devising the safety systems necessary to achieve them on operators themselves, subject to testing and approval by the regulator.¹⁰¹ This “safety case” approach was adopted by the Offshore Safety Act 1992, which brought offshore operations fully under the regime of the 1974 Act and conferred explicit power to modify and replace existing regulations via the mechanisms of that Act.¹⁰²

There was no inherent incompatibility between Cullen’s proposed approach and the existing institutional structure under which the Petroleum Engineering Division (PED) of the Department of Energy acted as the HSC’s agent for occupational health and safety and was directly responsible for other aspects of safety.¹⁰³ Cullen, however, reserved some of his strongest criticism for the Department and the PED, noting “a serious failure on the part of the [Department of Energy] to address the regulatory requirements for dealing with . . . major hazards” and “a failure to understand the CIMAH Regulations and the Safety Case,” and more generally, an approach tending “towards over-conservatism, insularity and a lack of ability to look at the regime and themselves in a critical way.”¹⁰⁴ It was therefore

98. W. DOUGLAS CULLEN, THE PUBLIC INQUIRY INTO THE PIPER ALPHA DISASTER, Cm. 1310, ¶ 2.1 (1990) (UK) [hereinafter CULLEN REPORT].

99. *Id.*

100. *Id.* ch. 23.

101. *Id.*

102. Offshore Safety Act 1992, c.15, § 1 (Gr. Brit.)

103. CULLEN REPORT, *supra* note 98, ¶ 21.47.

104. *Id.* ¶¶ 22.18, 22.20.

hardly surprising that Cullen proposed terminating the 1976 agency arrangement and transferring all offshore petroleum safety responsibilities to the HSE, despite acknowledging the lack of expertise in the HSE regarding offshore operations and the need to maintain existing communications between the unit of the Department concerned with petroleum licensing and those responsible for safety at important stages in the licensing process such as the award of licences, the appointment of operators, and the approval of development plans.¹⁰⁵ Cullen was however careful to say, in response to the same allegations of lack of independence of the safety function within the Department that had been put to the Burgoyne Committee, that he was not convinced that the Safety Division (as part of the PED) lacked independence or that its actions had been affected by considerations relating to the exploitation of resources.¹⁰⁶

After 28 years of North Sea operations, the effect of the Cullen Report was to introduce an institutional division between the economic aspects of the regime and certain elements of police powers—those relating to safety. Environmental controls, we should note, remained in the hands of the Department of Energy.¹⁰⁷ Looking carefully at the circumstances of this split, we see that it had less to do with the worries about lack of focus or conflict of goals of politically responsible departments that have fueled the push for independent public utility regulators than with the problems that may arise from *over-specialization* within an agency. Here, the PED and its Safety Division were entirely devoted to the offshore petroleum industry and were poorly informed about more general developments and advances in the regulation of industrial safety relevant to its industry. While petroleum safety was, and continues to be, managed through a distinct Offshore Safety Division within the HSE, that division can draw on policy developments and research along with on-site experience across the whole of the HSE, which has a staff of

105. *See id.* ¶¶ 22.5, 22.34-.38.

106. *Id.* ¶ 22.38.

107. *Department of Energy & Climate Change*, GOV.UK, <https://www.gov.uk/government/organisations/department-of-energy-climate-change> [<http://perma.cc/A6JC-XRL8>] (last visited Feb. 12, 2017).

around 2600, including over 1000 inspectors.¹⁰⁸

E. Departmental Administration of Environmental Controls

These offshore safety arrangements remained in force until the Montara and Macondo incidents. Since then they have evolved, as we shall see, but have not been subject to significant change. The United Kingdom history has however followed a different path with regard to the environmental aspect of police powers. Although some additional control to address the risk of escape of oil in offshore drilling was thought to be necessary from the outset, controls established by the petroleum production license have always played a major role and were the only source of control on environmental issues generally until the mid-1980s—well into the period of maximum productivity of the United Kingdom Continental Shelf.¹⁰⁹ From the beginning, the license has demanded departmental consents for drilling and abandoning wells, appointing operators, and any flaring of gas. It has also required the observance of “good oilfield practice” in the provision of storage facilities and pipelines and in the execution of works; the taking of all practicable steps to prevent the escape of waste of petroleum; providing insurance to meet oil spillage costs; and the avoidance of any unjustifiable interference with fishing, navigation, or the conservation of the living resources of the sea.¹¹⁰ These provisions, while still in place, now operate in association with a complex set of statutory environmental controls—some devised expressly for the offshore petroleum industry but most being of more general application.

This legislative development has been powerfully driven by the requirements of international treaties and European Union law. Such international law-making was already well-established in the maritime sphere by the time United Kingdom offshore

108. HEALTH & SAFETY EXECUTIVE, ANNUAL REPORT AND ACCOUNTS, 2013-14, HC 228, at 56, tbl. 9 (UK).

109. Continental Shelf Act 1964, c. 29, § 5 (UK), replaced by the Prevention of Oil Pollution Act 1971, c. 60 (UK).

110. For the original provisions as consolidated, see the Petroleum (Current Model Clauses) Order 1999, SI 1999/160, sch. 2, ¶¶ 17, 19-23 (UK). The equivalent clauses currently appear in the Petroleum Licensing (Production) (Seaward Areas) Regulations 2008, SI 2008/255, sch. 2, ¶¶ 19, 21-25 (UK), with a few changes in wording.

exploitation began, and since then the range of international requirements—either of global or regional scope, bearing upon every phase and incident of offshore exploration and exploitation—has proliferated remarkably. Some of the implementing statutes, such as the Food and Environment Protection Act 1985, affect the offshore oil industry as just one among many sources of the risks (here, dumping at sea) against which they seek to protect.¹¹¹

At the same time, the European Community has been the source of a distinct but overlapping stream of regulation issued in the general interest of environmental protection. Particular significance should be attached to the Community's environmental impact assessment Directives,¹¹² whose importance for the oil industry has been substantially enhanced, since 1998, by their offshore application.¹¹³ It is worth noticing that the mechanism through which this application has been achieved, and offshore environmental assessments imposed, is the exercise of the Minister's powers of control of operations and development under the license.¹¹⁴ In certain circumstances, therefore, the concession device represented by the license may still be an effective instrument of police regulation—here, to impose conditions precedent to the developments that licensees must see through if license rights are to be a source of profit. Such economic incentives for compliance are not, however, always present and are notably absent as a field nears exhaustion: hence

111. Food and Environment Protection Act 1985, c. 48, § 15 (Eng.).

112. Council Directive 97/11, 1997 O.J. (L 73) 5, 5 (EC) (amending Council Directive 85/337, 1985 O.J. (L 175) 40 (EC)).

113. The Offshore Petroleum Production and Pipe-lines (Assessment of Environmental Effects) Regulations 1999, SI 1999/360 (UK). Other significant sets of EC-derived environmental regulations flow from the Integrated Pollution Prevention and Control Directive, Council Directive 96/61, 1996 O.J. (L 257) 26 (EC), and the Habitats Directive, Council Directive 92/43, 1992 O.J. (L 206) 7 (EC), which requires the protection of certain habitats of wild fauna and flora. The court in *R v. Sec'y of State for Trade & Indus. Ex P. Greenpeace Ltd. (No.2)* [2000] Eu. L.R. 196, 221-22 (QBD), held that this protection was also applicable to the continental shelf and waters above. This entailed the extension of the implementing regulations by The Offshore Petroleum Activities (Conservation of Habitats) Regulations 2001, SI 2001/1754 (UK).

114. Offshore Petroleum Production and Pipe-lines (Assessment of Environmental Effects) Regulations 1999, art. 4. (requiring that licenses include the power for the Secretary of State to demand environmental impact assessments).

we find that a major legislative addition to the domestic regulatory regime, essentially inspired by environmental protection considerations, has been the control of abandonment of fields, first enacted in 1987 and now contained in the Petroleum Act 1998.¹¹⁵

Within the offshore petroleum industry, these different environmental regulations have all been entrusted to the department responsible for licensing offshore oil and gas activity.¹¹⁶ This has been the case even when there is a different department with the lead environmental policy responsibility.¹¹⁷ It may be argued that the goals of petroleum licensing present risks of conflict with goals of environmental protection that are no less acute than with goals of protecting health and safety. Indeed, they may be seen as more acute, because while health and safety concerns bear mainly on how exploration and production may be undertaken, environmental concerns may dictate that petroleum-related activities should not take place at all in certain areas. Nonetheless (or perhaps precisely because environmental considerations are crucial), this double responsibility of the industry's sponsoring department survived even the introduction, in 2009, of a new approach to marine management based on an all-embracing system of planning and licensing of marine activities, for which a new specialist regulator (the Marine Management Organization) was made responsible.¹¹⁸ Oil and gas activities mostly escaped this system because of provisions designed to ensure that the department could continue to exercise all of its pre-existing powers over activities of the offshore oil and

115. Petroleum Act 1998, c. 17, § 29 (UK).

116. Under the Energy Act 2016, c. 20 § 2 (UK), this responsibility is being transferred from the Department of Energy and Climate Change to a separate agency, the Oil and Gas Authority. *See infra* Section VII.D.

117. For example, the Merchant Shipping (Oil Pollution Preparedness, Response and Co-operation Convention) Regulations 1998, SI 1998/1056 §§ 2, 4 (UK) was made by the Secretary of State for Environment, but made the Secretary of State for Energy and Climate Change responsible for the approval of oil pollution emergency plans, rather than the Maritime and Coastguard Agency, who is responsible for all other such plans.

118. Marine and Coastal Access Act 2009, c. 23, § 23(5)(b)(2A) (UK). This act applies to UK waters, including those of the Exclusive Economic Zone, though the waters of the territorial sea adjacent to Scotland are regulated by the companion Marine (Scotland) Act 2010, (ASP 5) (Scot.).

gas industry that would otherwise fall within the purview of the Act, such as dumping at sea; discharge of oil and chemicals; and exploration, production, and pipelining activities generally.¹¹⁹

V. THE NORWEGIAN EXPERIENCE IN THE NORTH SEA

A. *The Initial Role of Licenses and Regulations*

The Norwegian petroleum regime is frequently held up as an exemplification of effective and efficient offshore petroleum regulation, in terms of both its economic and its police aspects.¹²⁰ Yet with the exception of its state participation arrangements—which certainly have been and remain of central importance¹²¹—the institutional development of the regime has not been radically different from that of the United Kingdom's. In particular, the debate on the merits of combining or separating regulatory functions has played out in rather similar terms.

Though Norway arguably had less need than the United Kingdom for rapid offshore oil and gas development, due to its abundant hydroelectric resources,¹²² it made its first move in 1963, staking a claim to the continental shelf, in response to oil company interest, a year before the United Kingdom.¹²³ Because

119. Marine and Coastal Access Act 2009, §§ 74, 77.

120. Tina Hunter, *The Role of Regulatory Frameworks and State Regulation in Optimising the Extraction of Petroleum Resources: A Study of Australia and Norway*, 1 EXTRACTIVE INDUSTRIES & SOC'Y 48 (2014); Mark C. Thurber et al., *Exporting the "Norwegian Model": The Effect of Administrative Design on Oil Sector Performance*, 39 ENERGY POL'Y 5366 (2011).

121. See generally RICHARD GORDON & THOMAS STENVOLL, STATOIL: A STUDY IN POLITICAL ENTREPRENEURSHIP (2007) (looking at the role international oil companies have played in the development of Norway's domestic policy framework and national oil company).

122. In 2013, hydropower accounted for more than 96 percent of total electricity production in Norway. NORWEGIAN MINISTRY OF PETROLEUM & ENERGY, FACTS 2015: ENERGY AND WATER RESOURCES IN NORWAY app. 3 (2015) https://www.regjeringen.no/contentassets/fd89d9e2c39a4ac2b9c9a95bf156089a/facts_2015_energy_and_water_web.pdf [<http://perma.cc/YG69-BY9U>].

123. Kgl. Res. 31 mai 1963 [Royal Decree of 31st May, 1963] (Nor.); Lov om utforskning og utnyttelse av undersjøiske naturforekomster [Act Relating to Exploration for and Exploitation of Submarine Natural Resources], June 21, 1963, nr. 12 (Nor.). At this time, Norway, unlike the UK, had not yet ratified the Geneva Convention on the Continental Shelf 1958, the relevant international convention. Hans Jacob Bull, *Norwegian Offshore Petroleum: The Legal and Administrative Response*, 25 SCANDINAVIAN

a deep trough in the seabed to the southwest of Norway might be argued to cut off its continental shelf in this area close to the coastline, the government's first concern was to conclude delimitation agreements with its neighbors ignoring the trough and applying the principle of equidistance; the first and most important agreement was concluded with the United Kingdom in March 1965.¹²⁴ A month later the decree containing Norway's first regulations on the exploration and exploitation of offshore petroleum, based on the very general authority conferred by the Continental Shelf Act 1963, was promulgated.¹²⁵ The system it instituted bore a strong resemblance to the system already established in the United Kingdom—it provided for exploration and production to take place under contractual licenses granted for lengthy periods¹²⁶ by the Ministry of Industry in regular licensing “rounds” by reference to a division of the Norwegian offshore area into rectangular blocks.¹²⁷ It has been suggested that this represented an application to offshore oil and gas of the concession system developed at the beginning of the century for the management of hydropower production in the public interest,¹²⁸ but while this background may have been useful to the designers of the decree, it is clear that the substance of the United Kingdom regime was in mind. According to Ryggvik, “many of the formulations included in the . . . decree . . . were written by lawyers working for the foreign companies” in search of licenses.¹²⁹

There was, however, a significant legal difference from the United Kingdom model—most of the rules the licensees would operate under were contained in the decree under which they were granted and subject to, rather than in the license itself. The

STUD. L. 33, 36 (1981).

124. Agreement Relating to the Delimitation of the Continental Shelf, U.K.-Nor, Mar. 10, 1965, 551 U.N.T.S. 214.

125. Kgl. Res. 9 apr. 1965 [Royal Decree of 9th April, 1965] (Nor.).

126. Production licenses granted in the early rounds by both the UK and Norway could have a total duration of 46 years. HELGE RYGGVIK, *THE NORWEGIAN OIL EXPERIENCE: A TOOLBOX FOR MANAGING RESOURCES?* 17 (2010).

127. Royal Decree of 9th April, 1965 ch. 3; RYGGVIK, *supra* note 126, at 17.

128. RYGGVIK, *supra* note 126, at 13-17.

129. *Id.* at 16.

license dealt only with matters specific to the license area.¹³⁰ This was thus a less “pure” form of the concessionary approach, and the statutory element was reinforced by a provision in the decree envisaging that the Minister might issue regulations (which could be applicable to licenses already granted) “relating to the manner in which exploration for or exploitation of petroleum shall be carried out.”¹³¹ The examples offered by the decree of subject-matter for such regulations covered both safety issues and resource management.¹³² This system was very similar to that adopted for leasing on the United States’ continental shelf.¹³³ Though more flexible than the United Kingdom’s, these arrangements did not give the government *carte blanche* to change the obligations of licensees by decree: in the *Phillips/Ekofisk Case*, the Norwegian Supreme Court held that a subsequent decree could not change the economic balance of the license without the licensee’s consent.¹³⁴

B. Institutional Arrangements 1965-1985: From Ministerial Department to Multi-Function Independent Regulator

As in the United Kingdom, the initial assumption was that the same authority—here, the Ministry of Industry—would handle both economic and police issues arising from the activities of the new offshore industry.¹³⁵ Formal safety regulation did not develop rapidly in Norway.¹³⁶ The first safety decree, produced in

130. Daintith & Gault, *supra* note 61, at 31.

131. Royal Decree of 9th April, 1965, § 37. Licenses now contain a provision that they are subject to regulations in effect at any time. For a license form, *see infra* note 170.

132. Royal Decree of 9th April, 1965, § 37; Daintith & Gault, *supra* note 61, at 31.

133. Outer Continental Shelf Lands Act 1953, §§ 6, 21, 43 U.S.C. §§ 1334, 1346.

134. For a discussion of the court’s judgment in the *Phillips/Ekofisk* case, see Frants Dalgaard-Knudsen, *Exploitation Concessions: Contracts or Permits? Contributions from the Norwegian Phillips/Ekofisk Case*, 5 J. ENERGY & NAT. RESOURCES L. 165 (1987). The Norwegian court’s decision can be compared to the U.S. Supreme Court’s approach to an analogous issue in *Mobil Oil Exploration Producing Southeast Inc. v. United States*, 530 U.S. 604 (2000).

135. A separate oil division was established for this purpose in the Ministry in 1966. Bull, *supra* note 123, at 40.

136. For an examination of Norwegian safety regulations, see Knut Kaasen, *Safety Regulation on the Norwegian Continental Shelf*, in RISK GOVERNANCE OF OFFSHORE OIL AND GAS OPERATIONS 103 (Preben Hempel Lindøe et al. eds. 2014).

1966 for exploratory drilling, was largely based on company proposals¹³⁷ and a revised regulation for exploration, appeared only in 1975 and for fixed installations in 1976.¹³⁸ By this time, the need for specialized policy and administrative arrangements for what was becoming Norway's largest industry had been recognized by the creation of separate bodies in June 1972: the Norwegian Petroleum Directorate (NPD) was created to handle administration, while the Norwegian State Petroleum Corporation, or Statoil, was created to manage state participation in petroleum licenses, a policy in operation since 1969.¹³⁹ In Norway and other Scandinavian countries, the general preference was to adopt this policy/administration shift as it focused the work of politically-responsible Ministers on strategy, policy, and supervision of the numerous administrative agencies that carry out the detailed work of government while enjoying considerable independence so far as individual decisions are concerned.¹⁴⁰ The reform did not, however, limit the Ministry to a purely supervisory and policy role: while NPD was responsible for ensuring that operators observed license conditions and regulations, the Ministry continued to determine the timing and location of license rounds; to award individual licenses; and to make other key individual decisions such as approvals for starting production, landing petroleum outside Norway, pipeline consents, etc.¹⁴¹ Nonetheless it is clear that within the Norwegian system, bodies like NPD can properly be regarded as independent regulators: as NPD regularly put it in its early annual reports, "[t]he Petroleum Directorate is authorized to decide on matters relating to exploration and utilization of petroleum resources on the seafloor and its subsoil, to the extent that the matters shall not be decided by the King, relevant Ministry or other public authority."¹⁴² In January 1978, the oil and gas functions of the

137. RYGGVIK, *supra* note 126, at 70.

138. Felix Y. Yokel & Emil Simiu, *Application of Risk Analysis to Offshore Oil and Gas Operations—Proceedings of an International Workshop* 132-33 (1985) (examining the Decree of 3rd October, 1975 and the Royal Decree of 9th July, 1976).

139. Thurber et al., *supra* note 120, at 5371.

140. Roness, *supra* note 25, at 29.

141. Bull, *supra* note 123, at 43-44.

142. NORWEGIAN PETROLEUM DIRECTORATE, ANNUAL REPORT 1980, at 13 (1980), <http://www.npd.no/Global/Engelsk/3-Publications/NPD-annual-reports/Annual-report->

Ministry of Industry were transferred to a new Ministry for Petroleum and Energy (MPE), to which NPD reports.¹⁴³

The high Norwegian fatality rate, with 82 lives lost in the period up to 1978,¹⁴⁴ meant that it was impossible to ignore the issue of responsibility for police regulation. In 1977, Norway adopted a general Working Environment Act whose principles closely resemble those of the United Kingdom's Health and Safety at Work Act 1974.¹⁴⁵ Despite the opposition of both the industry and the Ministry of Industry as its then sponsoring department, the Act was applied to offshore fixed installations.¹⁴⁶ This initiated the same switch from prescriptive to outcomes-based regulation as was to occur in the United Kingdom while likewise also entrusting the initial responsibility for carrying the switch into effect to the body that had hitherto developed and operated prescriptive regulations—in Norway, NPD.¹⁴⁷ This responsibility was not retained without a struggle: in 1976, NPD had to fight off a proposal that, with the coming into force of the Working Environment Act, a separate organization should be created for safety and other controls, administered by the Ministry of Local Government and Labour.¹⁴⁸ Three years later, however, that Ministry was entrusted with policy responsibility for safety and precautionary measures on the continental shelf and created a

1980.pdf [<http://perma.cc/5YQP-ALWN>].

143. *History*, NORWEGIAN PETROLEUM DIRECTORATE (May 15, 2009), <http://www.npd.no/en/about-us/organisation/history/> [<http://perma.cc/6M5N-LSWK>].

144. RYGGVIK, *supra* note 126, at 71.

145. *Id.* at 72-73. Both the Working Environment Act, Lov. om arbeidsmiljø, arbeidstid og stillingsvern mv. (arbeidsmiljøloven) [Act Relating to Working Environment, Working Hours, and Employment Protection, etc.], June 17, 2005, nr. 62 (Nor.), and the Health and Safety at Work etc. Act 1974, c. 37 (Gr. Brit.) aim to provide healthy and safe working conditions for employees.

146. RYGGVIK, *supra* note 126, at 73-74. Mobile installations and diving were only covered later. *Id.*

147. *From Prescription to Performance in Petroleum Supervision*, PETROLEUM SAFETY AUTH. NOR. (Mar. 12, 2010), <http://www.psa.no/news/from-prescription-to-performance-in-petroleum-supervision-article6696-878.html> [<http://perma.cc/MT7R-XKVS>]; Paterson, *supra* note 83, at 375-76.

148. NORWEGIAN PETROLEUM DIRECTORATE, ANNUAL REPORT 1976, at 1 (1976), <http://www.npd.no/Global/Engelsk/3-Publications/NPD-annual-reports/Annual-report-1976.pdf> [<http://perma.cc/MH4V-2X7A>]. This did eventually happen in 2004. See *infra* Section V.C.

special secretariat to handle this task; while NPD retained its functions in these areas, it now reported on their discharge reports to the Ministry of Local Government and Labour, not the Ministry of Petroleum and Energy.¹⁴⁹

While it is not possible to determine the precise impact of this shift of policy responsibility, it is clear that NPD absorbed the implications of the change of regulatory approach in the 1977 Act much better than did the PED in the United Kingdom. An outcomes-based approach in which the operator was clearly responsible for assuring safety was steadily developed by NPD under the rubric of “Internal Control,” with NPD focusing on checking that companies had properly-functioning safety systems, rather than carrying out detailed checks on the oil installations.¹⁵⁰ At the same time, a conscious emphasis was placed on the all-embracing nature of NPD competence. When the original offshore legislation was replaced in 1985 by the Act Pertaining to Petroleum Activities,¹⁵¹ new regulations were promulgated to deal separately with economic matters;¹⁵² with safety requirements, replacing the Decrees of October 1975 and July 1976;¹⁵³ and with the internal control arrangements of licensees, requiring that they ensure systematic compliance with requirements on safety, worker protection, resource management, and environmental protection.¹⁵⁴ The implementation of these regulations was placed in the hands of NPD, and, to facilitate its task, a further Decree on the Arrangement of Supervision of the Petroleum Activities gave

149. *Bull*, *supra* note 123, at 41-44.

150. RYGGVIK, *supra* note 126, at 75; NORWEGIAN PETROLEUM DIRECTORATE, ANNUAL REPORT 1981, at 109 (1981), <http://www.npd.no/Global/Engelsk/3-Publications/NPD-annual-reports/Annual-report-1981.pdf> [<http://perma.cc/9T8T-37XN>].

151. Lov om petroleumsvirksomhet (petroleumsloven) [Law Relating to Petroleum Activities (Petroleum Act)], Mar. 22, 1985, nr. 11 (Nor.), *repealed by* Petroleum Act, Nov. 29, 1996, nr. 72 (Nor.).

152. Forskrift til lov om petroleumsvirksomhet [Regulations Relating to Conducting Petroleum Activities (Activities Regulations)], June 27, 1997, nr. 653 (Nor.) (repealing Activities Regulations, June 14, 1985, nr. 1158).

153. Dag Erlend Henriksen & Merete Kristensen, *The Norwegian HSE Regime*, 4 *LSU J. ENERGY L. & RES.* 273, 275 n.2 (2016).

154. NORWEGIAN PETROLEUM DIRECTORATE, ANNUAL REPORT 1985, at 74-76 (1985), <http://www.npd.no/Global/Engelsk/3-Publications/NPD-annual-reports/Annual-report-1985.pdf> [<http://perma.cc/C6PL-5SYE>] (discussing Royal Decree of 28th June 1985).

NPD a general supervisory competence in regulatory matters and placed it in an intermediary position between industry operators and the various specialized regulators of offshore operations, like the Norwegian Telecommunications Directorate or the Maritime Directorate.¹⁵⁵

It should be noted that these developments toward a fully integrated system of control under a single administrative authority all occurred after the worst North Sea disaster that had so far occurred—the collapse of Norway’s *Alexander L. Keilland* accommodation platform in 1980, with the loss of 123 lives.¹⁵⁶ Indeed, they represented a deliberate attempt to respond through the creation of a more efficient system of regulation. Perhaps the division of policy responsibility between the Ministries of Petroleum and Energy, and Local Government and Labour, was thought to provide sufficient protection against any undue weighing of economic considerations by NPD when it exercised its police functions.

C. 2002: The Splitting of NPD

This integrated system operated for nearly two decades. Although NPD itself appeared to be convinced of its virtues—referring in 2002 to the “comprehensive knowledge and understanding of and for the NCS” that it had developed “over more than 30 years [a]s an integrated directorate covering both resource management and HSE,” and to its capacity for “holistic thinking”¹⁵⁷—the government decided in 2002 to hive off NPD’s safety functions into a new and distinct regulator, the Petroleum Safety Authority (PSA).¹⁵⁸ This change did not result from any specific oil and gas regulation issues, but rather as part of a

155. *Id.* at 75; *From Prescription to Performance*, *supra* note 147.

156. *From Prescription to Performance*, *supra* note 147.

157. NORWEGIAN PETROLEUM DIRECTORATE, ANNUAL REPORT 2002, at 8 (2002), <http://www.npd.no/Global/Engelsk/3-Publications/NPD-annual-reports/Annual-report-2002.pdf> [<http://perma.cc/82WA-MRFC>].

158. Kgl. Res. 19 Desember 2003 [Royal Decree of 19th December, 2003], nr. 1341 § 7 (Nor.), established the PSA, effective January 1, 2004. *The Petroleum Safety Authority Norway (PSA) Has Been Delegated Supervisory Responsibility for Three Planned Gas Power Plants*, PETROLEUMSTILSYNET (Apr. 7, 2006), <http://www.ptil.no/nyheter/the-petroleum-safety-authority-norway-psa-has-been-delegated-supervisory-responsibility-for-three-planned-gas-power-plants-article2542-702.html> [<http://perma.cc/V3S4-AFLU>].

general reform of regulatory institutions addressing the perception that many institutions had overlapping responsibilities. Therefore, one of its aims was to establish unambiguous roles for all agencies with greater horizontal specialization.¹⁵⁹ This represented a break with the Norwegian tradition of integrating different roles and functions, as hitherto exemplified by NPD.¹⁶⁰ According to the Director-General of NPD, it was essential that this division be effected in a way that “preserve[d] the holistic perspectives [of] both organisations.”¹⁶¹ Perhaps in recognition of this, PSA’s first Director-General was the former Director for Supervision of Activities at NPD.¹⁶² NPD continues to discharge its traditional functions relating to economic matters and resource management, reporting on these matters to the Ministry of Petroleum and Energy, while PSA reports to what is now the Ministry of Labour and Social Affairs.¹⁶³

D. Environmental Controls

Except for the earliest years of offshore exploration and production, when the 1965 Decree was the essential source of regulation, responsibility for the protection of the environment against negative effects from offshore operations has been the responsibility of a separate agency. The current Norwegian Environment Agency, which reports to the Ministry of Climate and Environment, was founded as the Norwegian Pollution Control Authority in 1974;¹⁶⁴ since 1981 it has exercised

159. St. meld om statlige tilsyn [Report on State Supervision] nr 17 § 1.2 (2002-2003) (Nor.).

160. *Id.* § 1.2.1, Roness, *supra* note 25, at 78.

161. NORWEGIAN PETROLEUM DIRECTORATE, *supra* note 157, at 9.

162. *End of An Era*, PETROLEUM SAFETY AUTH. NOR. (Apr. 12, 2013), <http://www.psa.no/news/end-of-an-era-article9293-878.html> [<http://perma.cc/3XBX-MJLN>].

163. *Who We Are*, NORWEGIAN PETROLEUM DIRECTORATE (July 7, 2011), <http://www.npd.no/en/publications/reports/oil-for-development-2010/who-we-are/> [<http://perma.cc/KR4K-L7PD>].

164. From 2010 until 2013, when it was absorbed into the Norwegian Environment Agency with the Directorate for Nature Management, the Norwegian Pollution Control Authority was known as the Climate and Pollution Agency. *Norwegian Pollution Control Authority*, EUROPEAN NETWORK OF THE HEADS OF ENV’T PROT. AGENCIES, http://epanet.pbe.eea.europa.eu/european_epas/countries/no/norwegian-pollution-control-

environmental control over offshore operations under powers conferred by the Act relating to Protection against Pollution and relating to Waste.¹⁶⁵ This is the general law for the control of pollution in Norway, extended with some modifications by Section 4 to the continental shelf.¹⁶⁶ While this is an independent regulatory responsibility, the work of the Directorate and of other specialized authorities like the Norwegian Radiation Protection Authority is coordinated by the Petroleum Safety Authority under a system of agreements as a continuation of the 1985 arrangements instituted after the *Alexander L. Keilland* disaster.¹⁶⁷ These arrangements involve no changes to the various agencies' formal authority to make decisions pursuant to prevailing legislation and delegated powers: thus, the principal decrees and regulations for offshore activities are jointly prepared or promulgated by the agencies involved, coordinated by the Petroleum Safety Authority; but in the various areas they cover (e.g., facilities safety, the working environment, emergency preparedness, environmental protection), they empower the individual agencies and draw on their basic legislative authorities.¹⁶⁸

As already stated, the Norwegian license, in contrast with the United Kingdom approach, contains very few of the general rules governing either the economic or the police aspects of offshore

authority/ [<http://perma.cc/5MLW-T867>] (last visited Dec. 17, 2016); *Norwegian Environment Agency*, NORWEGIAN ENV'T AGENCY, <http://www.miljodirektoratet.no/english/> [<http://perma.cc/94NR-9LRP>] (last visited Dec. 17, 2016)

165. Lov om vern mot forurensninger og om avfall (forurensningsloven) [Act Relating to Protection Against Pollution and Relating to Waste (Pollution Control Act)], Mar. 13, 1981, nr 6 § 6 (Nor.)

166. *Id.* §§ 3, 4.

167. *How It Began*, PETROLEUM SAFETY AUTH. NOR. (Aug. 27, 2015), <http://www.psa.no/our-history/category1201.html> [<http://perma.cc/TR5J-VHJD>]; *About the NRPA*, NORWEGIAN RADIATION PROTECTION AUTHORITY, <http://www.nrpa.no/en/about-nrpa> [<http://perma.cc/R7GK-K2M8>] (last visited Mar. 16, 2017).

168. Both Forskrift om helse, miljø og sikkerhet i petroleumsvirksomheten og på enkelte landanlegg (rammeforskriften) [Regulations on Health, Safety and Environment in the Petroleum Activities and at Certain Onshore Facilities (Framework Regulations)], Feb. 12, 2010, nr. 158 (Nor.), and Forskrift til lov om petroleumsvirksomhet [Regulations Relating to Conducting Petroleum Activities (Activities Regulations)], June 27, 1997, nr. 653 (Nor.), discuss regulations relating to health, safety, and the environment in petroleum activities and at certain onshore facilities.

petroleum operations, but is essentially confined to matters specific to the area licensed (e.g., work programs, relinquishment, state participation, operating agreement, special environmental restrictions). There is, however, one exception that forms an interesting parallel to the use of the United Kingdom license to reinforce environmental control. In the late 1990s, the Pollution Control Agency adopted a policy of zero discharge of environmentally harmful components to the sea.¹⁶⁹ While this policy is not reflected even in the latest regulations, it is imposed as one of the “miscellaneous conditions” of recent licenses.¹⁷⁰ In Norway, therefore, as in the United Kingdom, the “concession” element of the system retains some utility as an additional arm of control.

VI. THE AUSTRALIAN OFFSHORE EXPERIENCE, 1967 TO DATE

A. *Federal and State Jurisdiction Over Offshore Petroleum*

In federations where the constitution grants jurisdiction over or ownership of onshore natural resources to the states rather than federal authority, the extension of natural resource exploration and exploitation offshore has produced federal-state disputes in need of resolution by constitutional adjudication.¹⁷¹ In

169. *Oil and Gas Activities*, NORWEGIAN ENV'T AGENCY § 4 (July 7, 2016) <http://www.environment.no/Topics/Marine-areas/Oil-and-gas-activities/> [<http://perma.cc/Z5JP-5W2E>].

170. A model production license for awards in APA rounds can be found at *The Petroleum Act and the Licensing System*, NORWEGIAN PETROLEUM, <http://www.norskpetroleum.no/en/framework/the-petroleum-act-and-the-licensing-system/#production-licences> [<http://perma.cc/94SK-WLU2>] (last visited Mar. 16, 2016).

171. In the United States, see *United States v. California*, 332 U.S. 19, 29-39 (1947) (holding that the federal government has rights in and power over a three-mile marginal belt along the coast); *United States v. Louisiana*, 339 U.S. 699, 705-06 (1950) (holding that the federal government has rights in both the three-mile belt and the twenty four miles seaward of the belt); *United States v. Texas*, 339 U.S. 707, 715-20 (1950) (holding that the federal government, rather than Texas, had domain over the marginal belt). In Canada, see *Reference re Offshore Mineral Rights*, [1967] S.C.R. 792, 793 (Can.) (holding that Canada has exclusive jurisdiction over offshore mineral rights); *Reference re Mineral and Other Natural Resources of the Continental Shelf*, [1983] 145 D.L.R. (3d) 9, ¶ 110 (Can. Nfld. C.A.) (holding that rights to the natural resources of the continental shelf belong to Canada); *Reference re Newfoundland Continental Shelf*, [1984] 1 S.C.R. 86, 127-29 (Can.) (holding that Canada has legislative jurisdiction and the right to explore and exploit in the continental shelf).

Australia, while both the States and the federation (“the Commonwealth”) claimed resource rights under the territorial sea and continental shelf, disputes were initially avoided by leaving these competing claims unresolved and making the States the regulators of offshore petroleum activity both on their own behalf and as agents for the Commonwealth, acting under identical Commonwealth and state legislation: the Petroleum (Submerged Lands) Act 1967 (PSLA) and its State equivalents.¹⁷² One important practical advantage of this scheme was that expertise in regulating mineral extraction of any kind resided entirely in State mining departments: the Commonwealth government had no capacities or experience in this field.¹⁷³ Within a very short time, however, the system broke down because the Commonwealth thought the States were not acting in accordance with the spirit of the 1967 agreement. Therefore, in 1973, the Commonwealth claimed the offshore maritime zones by enacting the Seas and Submerged Lands Act.¹⁷⁴ The States’ challenge of the validity of this legislation was rebuffed by the High Court in *New South Wales v Commonwealth*, which held that sovereign rights in relation to the continental shelf outside territorial waters were vested in the Commonwealth; and that, as claimed in the Seas and Submerged Lands Act, Commonwealth rights also extended to territorial and inland waters.¹⁷⁵

Under the 1980 Offshore Constitutional Settlement, the Commonwealth ceded, to each State and to the Northern Territory, jurisdiction over and ownership of the resources of the inland waters and the first three nautical miles of the band of territorial sea adjacent to its coastline.¹⁷⁶ Although the

172. DEP’T OF INDUS., SCI. & RES., OFFSHORE SAFETY & SEC., PETROLEUM & ELEC. DIV., FUTURE ARRANGEMENTS FOR THE REGULATION OF OFFSHORE PETROLEUM SAFETY 20 (2001) (reflecting on the power struggle between Commonwealth and the States in the offshore area at the time PSLA was enacted); Constance D. Hunt, *The Offshore Petroleum Regimes of Canada and Australia: Some Comparative Observations*, 7 AMPLA BULL. 103, 106 (1988).

173. *Australia’s Identified Mineral Resources*, GEOSCIENCE AUSTRAL., <http://www.ga.gov.au/scientific-topics/minerals/mineral-resources/aimr> [<http://perma.cc/FZ66-8ATB>] (last visited Dec. 17, 2016).

174. *Seas and Submerged Lands Act 1973* (Cth) pt II (Austl.).

175. *NSW v Commonwealth* (1975) 135 CLR 337, 416 (Austl.).

176. ATTORNEY-GENERAL’S DEP’T, OFFSHORE CONSTITUTIONAL SETTLEMENT: A

Commonwealth was now the undisputed authority over the continental shelf, it continued to rely on the States for the day-to-day administration of petroleum activity in this area.¹⁷⁷ While State Ministers with petroleum responsibilities continued to act, through their Department, as the “Designated Authority” in the area of continental shelf adjacent to their State’s territorial sea, major decisions on the economic relationship between the Commonwealth and the company—such as grant or withdrawal of rights to operate, or approval of exploration programs and field development plans—were now to be taken by the relevant State minister and the Commonwealth minister jointly, as a “Joint Authority” under the Commonwealth PSLA, with the latter having the deciding voice in disagreements.¹⁷⁸ These changes were given effect through limited amendments to the Commonwealth and State PSLAs¹⁷⁹ and the passage of other legislation.¹⁸⁰

The 1980 settlement ensured that the Commonwealth did not need to develop any new regulatory capacities and that all petroleum activities in a given segment of the offshore would be regulated by the same State department, though that department might find itself constrained to operate under three separate pieces of legislation: (1) the Commonwealth PSLA for Commonwealth waters—the continental shelf and the outer nine miles of the territorial sea; (2) the State PSLA, as modified in 1982, for State waters—the inner three miles; and (3) the State’s onshore legislation for internal waters and any landfalls required by the offshore activity. The State and Commonwealth PSLAs

MILESTONE IN CO-OPERATIVE FEDERALISM 6-8 (1980).

177. *Id.* at 13.

178. *Id.* at 4, 7-8.

179. *Petroleum (Submerged Lands) Amendment Act 1980* (Cth) s 10 (Austl.); *Petroleum (Submerged Lands) Act 1982* (WA) s 9(4)-(5) (Austl.); *Petroleum (Submerged Lands) Act 1982* (Vic) s 7(4)-(5) (Austl.); *Petroleum (Submerged Lands) Act 1982* (Qld) s 7(5)-(6) (Austl.); *Petroleum (Submerged Lands) Act 1982* (SA) s 6(4)-(5) (Austl.); *Petroleum (Submerged Lands) Act 1982* (Tas) s 6(4)-(5) (Austl.); *Petroleum (Submerged Lands) Act 1982* (NSW) s 8(5)-(6) (Austl.).

180. The Commonwealth Acts needed to effect the transfers include *Coastal Waters (State Powers) Act 1980* (Cth) ss 4-5 (Austl.); *Coastal Waters (Northern Territory Powers) Act 1980* (Cth) ss 4-5 (Austl.); *Coastal Waters (Northern Territory Title) Act 1980* (Cth) ss 4-5 (Austl.); *Offshore Minerals Act 1994* (Cth) ss 32-33 (Austl.).

were designed to operate as a common mining code with identical provisions to limit the consequent complexity, except for Western Australia, which modeled its onshore legislation on the PSLA.¹⁸¹ State onshore legislation might depart significantly from this pattern. Therefore, a pipeline connecting a continental shelf gasfield to an onshore terminal would require three separate licenses—one under each Act—though the same authority would deal with their grant and administration. This structure was not modified when the PSLA was replaced in 2006 by the Offshore Petroleum and Greenhouse Gas Storage Act 2006 (OPGGSA).¹⁸² As we shall discuss, although regulatory responsibilities and important aspects of regulation have shifted since 1967, the complications engendered by the federal nature of the regime remain.

B. 1967: The Nature and Administration of the PSLA Regime

Because of the original dispute about offshore rights between the states and the Commonwealth, the PSLA deliberately ignored the difficult question of who owned the petroleum, and this omission was not addressed in the Offshore Constitutional Settlement or the OPGGSA.¹⁸³ As it stands today, the OPGGSA establishes detailed statutory rules for issuing exploration permits and production licenses which provide the producer of petroleum with title to the petroleum produced.¹⁸⁴ Despite this effect, and the fact that permits, licenses, and leases (collectively referred to as “titles”) have been held to create proprietary rights,¹⁸⁵ the scheme of the Act means that these titles are in the nature of statutory authorizations. However, provisions making it an offense for anyone other than the holder of the appropriate permit or license to conduct exploration or production make the

181. *Compare Petroleum and Geothermal Resources Act 1967* (WA) (Austl.) with *Petroleum (Submerged Lands) Act 1967* (Cth) (Austl.).

182. *Offshore Petroleum and Greenhouse Gas Storage Act 2006* (Cth) (Austl.).

183. Terence Daintith, *A Critical Evaluation of the Petroleum (Submerged Lands) Act as a Regulatory Regime*, 2000 AMPLA Y.B. 91, 93.

184. *Offshore Petroleum and Greenhouse Gas Storage Act 2006* (Cth) pts. 2.2, 2.4. A third type of instrument, the retention lease, enables rights in discovered fields to be retained until production becomes commercially viable. *Id.* pt. 2.3.

185. *Commonwealth v WMC Res Ltd* [1998] HCA 8, ¶ 14 (Austl.).

rights exclusive and effectively equivalent to those rights that might more commonly be enjoyed under a contractual license, lease, or concession.¹⁸⁶ This approach produced a regime which, while akin to a concession regime in broad economic structure, is contained entirely in a comprehensive (and now extremely long and complex) piece of primary legislation. In contrast to the initial position in both the United Kingdom and Norway, that legislation regulated both the economic relationship at the core of the concession and the subject-matter of police regulation, like safety, respect for good oilfield practice, and environmental matters.

Detailed second-level regulation was provided for through two devices: regulations (made by the Commonwealth Government)¹⁸⁷ and directions (issued to title-holders and others by Designated Authorities).¹⁸⁸ Substantive regulations did not begin to appear until the 1990s, and several reasons have been advanced for this delay, including the level of detail required and the need for all governments to agree on them.¹⁸⁹ Meanwhile, the power of the Designated Authorities to give directions was very extensive, covering any matter which might be the subject of regulations under the Act, including the full range of police regulations.¹⁹⁰ This enabled the most concerned States (Victoria and Western Australia) to maintain the rules already being applying in the offshore application of their own legislation.¹⁹¹ Directions were a cumbersome device because every time a new title was issued or there was a change to the title-holders, the directions in force would all have to be served afresh. Those of general application were collected into a “Schedule of Specific

186. *Petroleum (Submerged Lands) Act 1967* (Cth) s 19 (Austl.).

187. *Offshore Petroleum and Greenhouse Gas Storage Act 2006* (Cth) s 781 (originally enacted as *Petroleum (Submerged Lands) Act 1967* (Cth) s 157 (Austl.)).

188. *Offshore Petroleum and Greenhouse Gas Storage Act 2006* (Cth) ss 574, 574A (providing directions to both the National Offshore Petroleum Safety and Environmental Management Authority and the Commonwealth Minister, rather than the Designated Authority) (originally enacted as *Petroleum (Submerged Lands) Act 1967* (Cth) s 101).

189. Hunt, *supra* note 172, at 107-08; Tina Hunter, *Australian Offshore Petroleum Regulation After the Varanus Island Explosion and the Montara Blowout—Drowning in a Sea of Federalism?*, 25 AUSTL. & N.Z. J. MAR. L. 69, 73-74 (2011).

190. Jessica Davies, *Commonwealth Directions Powers and Section 101 of the Petroleum (Submerged Lands) Act*, 24 AUSTL. RES. & ENERGY L.J. 195, 195-96 (2005).

191. *Id.* at 201.

Requirements” which was incorporated into permits, leases, and licenses through a condition requiring its observance.¹⁹² By 1985, when a set of uniform directions had been developed, the Schedule covered all the things that commonly fall under the subject of police regulation in this field.¹⁹³

While there are parallels between the United Kingdom and Australia in the early development of the police powers to cover matters like safety and the environment, there is one major structural difference. In the United Kingdom, aside from matters of general law, the main source of these powers was the license contract, whereas in Australia the PSLA operated as the source of the directions power.¹⁹⁴ However, over time in both jurisdictions, the substantive expression of these police powers progressively moved into formal regulations. By the time the Petroleum (Submerged Lands) (Management of Environment) Regulations 1999 were passed, this process was well advanced in Australia.¹⁹⁵

In relation to general laws, including the police powers exercised by States in the onshore territory, the legislation giving effect to the Offshore Constitutional Settlement resulted in State and Northern Territory laws being applied in Commonwealth waters, except in certain matters like taxation, and subject to being overridden by any inconsistent Commonwealth legislation on the same topic.¹⁹⁶ Thus, in the absence of relevant Commonwealth law, State laws on a range of matters—e.g., radiation safety—would apply to petroleum activities in Commonwealth waters.

192. See Explanatory Statement, *Offshore Petroleum and Greenhouse Gas Storage Act 2006* (Cth) 3, 12-13 (Austl.).

193. *Id.* at 2-3.

194. JOHN MORGAN ET AL., REVIEW AND COMPARISON OF PETROLEUM SAFETY REGULATORY REGIMES FOR THE COMMISSION FOR ENERGY REGULATION §§ 5.2.2.1, 7.2.2.1 (2010), <https://www.cer.ie/docs/000458/cer11015.pdf> [<http://perma.cc/6J3A-FHJV>].

195. See Davies, *supra* note 190 (describing the extensive expansion of direction powers in Australia as a result of the PSLA); *infra* Section VI.C.

196. *Coastal Waters (State Powers) Act 1980* (Cth) ss 5, 7 (Austl.); *Offshore Petroleum and Greenhouse Gas Storage Act 2006* (Cth) ss 80(1), 83, 85 (Austl.).

C. *Unusual Features of the Australian Structure and Resultant Criticisms*

While the original design of Australian offshore petroleum gave comprehensive police powers to State and Northern Territory mining departments in their role as Designated Authority, the departments, under their respective Ministers, and the Commonwealth simultaneously shared the powers over significant economic and resource management decisions, exercised through the device of the Joint Authority.¹⁹⁷ Generally, there was no institutional separation between these decisions and regulatory control over police matters like safety and the environment within the State departments.¹⁹⁸ There was also no separation between policy-making and regulatory decision-making in these departments, unlike the agency structures described in the United Kingdom and Norway.¹⁹⁹ Additionally, the Commonwealth and State PSLAs were noteworthy for the absence of clear objectives, providing no legislative guidance that would help a Designated Authority manage competing or inconsistent priorities.

In relation to economic control, however, some of the risks alleged to attach to this kind of unstructured decision-making by Ministerial departments²⁰⁰ may have been attenuated by the unusual device of Joint Authority decision-making. Did this feature of the regulatory structure improve the quality of regulation?

Until 2012, there was no independent body responsible for providing advice to the Joint Authority as a whole.²⁰¹ Each Minister could call on his or her department for advice; therefore, two different groups of people, Commonwealth and State, would be considering a decision put before a Joint Authority. This could promote a more thorough review and analysis than if a single decision-maker was involved, like a single petroleum department.

197. *Petroleum (Submerged Lands) Act 1967* (Cth) ss 8A(1), 8C (Austl.).

198. See Hunter, *supra* note 189, at 82 (advocating for increased separation between policymaking and regulatory enforcement decision-making bodies).

199. See *supra* Sections III.A, IV.B.

200. See *supra* Sections II.B.

201. For the 2012 changes, see *infra* Section VI.F.

As a practical matter the Joint Authorities appear to have worked largely on a consensus basis, with the Commonwealth rarely, if ever, using its deciding vote.²⁰² However, this is likely more indicative of the fact that most of the Joint Authority's regulatory decisions, such as who should be awarded a license, were generally not contentious, rather than of any protracted discussion and analysis to achieve consensus improving the quality of those decisions.

The Joint Authority arrangement is also susceptible to tensions arising from differences between State and Commonwealth interests, although these tend to occur on the margins. A recent example involved the question of whether gas from Commonwealth waters off Western Australia should be brought to shore there for liquefaction, with consequent developmental benefits for the State, or whether new offshore liquefaction technology should be employed.²⁰³ Western Australia therefore argued strongly for onshore processing of gas from the Browse Basin, which ultimately caused a difference of view in the Joint Authority as to the title conditions that should be imposed.²⁰⁴

The States' performance of their role as Designated Authorities was largely financed by registration fees for transfers of licenses and other titles and for dealings in titles, imposed at a rate of 1.5 percent on the value of the interests which were the subject of the transaction.²⁰⁵ Payment of these sums to the States

202. One of the few recorded instances of disagreement concerned the conditions on a retention lease in relation to title in the Browse Basin where Western Australia complained that the Commonwealth had not adequately consulted regarding the removal of a condition requiring onshore processing in December 2013. ECON. & INDUS. STANDING COMM. OF THE W. AUSTRALIAN PARLIAMENT, THE ECONOMIC IMPACT OF FLOATING LNG ON WESTERN AUSTRALIA, REPORT NO. 2 (May 2014), [http://www.parliament.wa.gov.au/Parliament/commit.nsf/\(Report+Lookup+by+Com+ID\)/38F15CACBDE6E04148257CD90007E2A1/\\$file/20140515%20EISC%20FLNG%20Inquiry%20Report%20Volume%201.pdf](http://www.parliament.wa.gov.au/Parliament/commit.nsf/(Report+Lookup+by+Com+ID)/38F15CACBDE6E04148257CD90007E2A1/$file/20140515%20EISC%20FLNG%20Inquiry%20Report%20Volume%201.pdf) [<http://perma.cc/F6ZV-XBNT>].

203. *Id.* at i.

204. *Id.* ch. 10.

205. *Offshore Petroleum and Greenhouse Gas (Registration Fees) Act 2006* (Cth) pts 2-3 (Austl.). Current information about cost recovery and fees, including a guidance note for the schedule of fees, can be found at the National Offshore Petroleum Titles Administrator website. *Cost Recovery and Fees*, NAT'L OFFSHORE PETROLEUM TITLES ADMIN., <http://www.nopta.gov.au/cost.html> [<http://perma.cc/EBT4-7LEZ>] (last visited

was part of the original 1967 compromise, designed to compensate the States for the stamp duty that would have otherwise been imposed on these transactions.²⁰⁶ These fees provided the largest element of State income to cover, and in some cases more than cover, Designated Authority activities.²⁰⁷ In the Northern Territory, registration fees collected between 2005 and 2009 totaled over \$17 million—nearly five times the budget allocated to petroleum regulatory activity by the Northern Territory government for this period.²⁰⁸ While this period included an exceptional year for transfers and dealings, it is clear from this example that these fees might be a tempting source of money to subsidize other activities.

Because of the undoubtedly complex regime, as well as the inconsistency resulting from different regulators for each State and the Northern Territory, concerns were raised by the industry.²⁰⁹ The restricted role of the Joint Authority and the relative administrative autonomy of the Designated Authority of each State and the Northern Territory made it difficult to overcome these problems, resulting in increasing pressure for change.

D. 2003: The National Offshore Petroleum Safety Authority as an Independent Regulator

The initial impetus for that change was provided by offshore safety. Although there was not an early disaster similar to the

Mar. 16, 2017).

206. *Petroleum (Submerged Lands) (Registration Fees) 1967* (Cth) (Austl.).

207. REGULATORY BURDEN REVIEW, *supra* note 27, at xxiii, 265-66.

208. BORTHWICK, *supra* note 5, at 218-19.

209. AUSTRALIAN PETROLEUM PROD. & EXPL. ASS'N LTD., SUBMISSION TO THE PRODUCTIVITY COMMISSION'S REVIEW OF REGULATORY BURDENS ON BUSINESS – PRIMARY SECTOR 7 (2007) [hereinafter APPEA, BURDENS ON BUSINESS] (“[T]he industry would strongly support an investigation into the viability of a national regulatory authority to manage all regulatory approvals for the oil and gas industry.”); AUSTRALIAN PETROLEUM PROD. & EXPL. ASS'N LTD., SUBMISSION TO THE PRODUCTIVITY COMMISSION REVIEW OF THE REGULATORY BURDEN ON THE UPSTREAM PETROLEUM (OIL AND GAS) SECTOR 10 (2008) [hereinafter APPEA, BURDEN ON UPSTREAM PETROLEUM] (“The length and complexity of the multi-jurisdictional approvals regime . . . is clearly contributing to an international perception that Australia is a difficult place to invest in oil and gas exploration and development.”).

ones that occurred in the United Kingdom and Norway, Australia did not ignore the developments occurring there, particularly Lord Cullen's inquiry.²¹⁰ In 1991 a consultative committee on safety formed by the Commonwealth Minister for Resources recommended implementing key outcomes from Lord Cullen's inquiry in Australia.²¹¹ This resulted in the introduction of a safety case regime, under a new Schedule 7 (Occupational Health and Safety) to the PSLA,²¹² and of performance-based safety regulations.²¹³

The Commonwealth Minister for Resources commissioned a report on the progress of implementing the safety case,²¹⁴ resulting in a review, commenced in 1999, of offshore safety arrangements by a team of international safety experts.²¹⁵ Their report and recommendations highlighted the defects in the system created by the Offshore Constitutional Settlement: numerous jurisdictions causing overlaps and inconsistencies, lack of regulatory skill at the Designated Authority level, and a lack of expertise and authority at the Commonwealth level to drive the changes needed to achieve world-class safety practice.²¹⁶ One of the report's key recommendations was the creation of a national petroleum regulatory authority to oversee safety implementation in Commonwealth waters. Offshore worker representatives pressed strongly for a single regulator, and this was the position taken by the Commonwealth.²¹⁷ However, one aspect of this was particularly problematic, given the separation of jurisdiction between State and Commonwealth waters: for the new regulator to have comprehensive authority over offshore operations, including those in State and Northern Territory waters, then the

210. AUSTRALIAN GOV'T, FINAL GOVERNMENT RESPONSE TO THE REPORT OF THE MONTARA COMMISSION OF INQUIRY 2 (2011); see CULLEN REPORT, *supra* note 98.

211. AUSTRALIAN GOV'T, *supra* note 210.

212. *Petroleum (Submerged Lands) Amendment Act 1992* (Cth) s 6 (Austl.).

213. *Petroleum (Submerged Lands) (Occupational Health and Safety) Regulations 1993* (Cth) pt 2 (Austl.).

214. TONY BARRELL, SECOND REVIEW OF THE MANAGEMENT OF SAFETY IN THE OFFSHORE OPERATIONS OF BHP PETROLEUM (1997).

215. ODD B. FINNESTAD ET AL., AUSTRALIAN OFFSHORE PETROLEUM SAFETY CASE REVIEW: REPORT OF THE INDEPENDENT REVIEW TEAM (2001).

216. *Id.* at 11-12, 17, 23, 39.

217. DEP'T OF INDUS., SCI. & RES., *supra* note 172, at 40.

States and the Northern Territory would have to confer their powers over safety on the Commonwealth.

The necessary changes in law were completed and the new agency, the National Offshore Petroleum Safety Authority (NOPSA), was established on January 1, 2005.²¹⁸ While most States conferred the regulation of safety in their coastal waters on NOPSA, Western Australia did not.²¹⁹ Furthermore, while NOPSA was responsible for safety on offshore petroleum facilities, well control and environmental regulation remained with the States and Northern Territory under the Designated Authority arrangement.²²⁰

NOPSA was created as a statutory corporation with its own board and a chief executive officer, making it clear from the outset that it was separate from any government department, unlike some of the executive agencies in Europe. NOPSA was funded by industry levies, rather than general government funding, and the relevant Commonwealth Minister had limited power to give it directions: for example, the Minister could not give it directions concerning a particular facility.²²¹ So 38 years after the PSLA, an institutional division was created, as far as safety was concerned, between the economic aspects of the regime and police powers.

E. Other Developments

Development of environmental regulation was also occurring, but was still administered by the Designated Authorities. The main change in Commonwealth waters was the introduction of the Petroleum (Submerged Lands) (Management of Environment) Regulations 1999, replacing environmental controls contained in the Schedule of Specific Requirements.²²²

218. *Petroleum (Submerged Lands) Amendment Act 2003* (Cth) ss 2, 150XA, 150XB (Austl.).

219. REGULATORY BURDEN REVIEW, *supra* note 27, at 54-55.

220. *Id.* at 173, 175.

221. *Guideline Safety Case Levies*, NAT'L OFFSHORE PETROLEUM SAFETY & ENVTL. MGMT. AUTH. 1 (2016), <https://www.nopsema.gov.au/assets/Guidelines/A15538.pdf> [<http://perma.cc/F4ZE-TKY5>]; see *Petroleum (Submerged Lands) Act 1967* (Cth) s 150YX(2) (Austl.).

222. *Petroleum (Submerged Lands) (Management of Environment) Regulations 1999* (Cth) s 3 (Austl.).

These regulations required that the Designated Authority approve environmental plans before petroleum-related activities could be undertaken in Commonwealth waters.²²³ These plans must demonstrate that environmental risks will be reduced to a level as low as reasonably practicable.²²⁴ The legislation of the States and Northern Territory continued to apply in their waters and onshore.²²⁵

Also in 1999, a separate, independent set of environmental controls was introduced at the Commonwealth level, giving the Commonwealth Minister powers over certain matters of national environmental significance.²²⁶ Any development occurring in Commonwealth waters generally fell under this Act and could be referred to the Commonwealth Environment Minister.²²⁷ Therefore, offshore exploration and production activities were likely to require two separate sets of environmental approvals, each granted by a politically-responsible authority.

The changes occurring between 1999 and 2005 tended, if anything, to make the regulatory picture more, rather than less, complex. Thus, in 2008, the Commonwealth government commissioned a further inquiry by the Productivity Commission into the “regulatory burden” on the upstream oil and gas sector.²²⁸ The terms of reference made it clear that the Commonwealth government was ready to move further towards the centralization of control powers, inviting the Commission, *inter alia*, to

report on regulatory impediments to improved performance, including inconsistencies and duplication across jurisdictions, and ways in which governments in Australia could address them; and consider options for a national regulatory authority (for example, along the lines of the National Offshore Petroleum Safety Authority model) to manage all regulatory approvals for the upstream petroleum industry as a means of addressing issues of regulatory duplication and

223. *Id.* reg 9(1).

224. *Id.* reg 11(1)(b).

225. REGULATORY BURDEN REVIEW, *supra* note 27, at 54.

226. *Environment Protection and Biodiversity Conservation Act 1999* (Cth) ch 2 [hereinafter EPBC Act].

227. *Id.* ch 2, pt 3.

228. The final report was published as REGULATORY BURDEN REVIEW, *supra* note 27.

inconsistencies.²²⁹

Submissions to the Commission by the companies' representative body, the Australian Petroleum Production and Exploration Association (APPEA), stressed the difficulties involved in dealing with the volume of approvals required by State and Commonwealth authorities,²³⁰ the duplication of controls, and the regulatory demands of the multiple legislative regimes applicable to cross-jurisdictional projects.²³¹

In response, the Commission's report, while noting the particular regulatory burden imposed on "cross-jurisdictional" projects (e.g., pipelines linking continental shelf fields with onshore terminals), considered that a single national petroleum regulator, for offshore and onshore, was impracticable in the light of constitutional arrangements and the diversity of State approaches to onshore regulation.²³² Indeed, the Commission's final recommendation was to create a national petroleum regulator whose remit would be confined to Commonwealth waters,²³³ but which would assume comprehensive regulatory responsibility for resource management, pipelines, and environmental approvals and compliance, while operating alongside NOPSA, which would retain responsibility for offshore health and safety.²³⁴ This recommendation emerged just four months before the Montara blow-out, fire, and oil spill; once lessons learned from the Montara blowout and the Macondo incident were taken into account, the eventual reforms took a rather different shape.

229. REGULATORY BURDEN REVIEW, *supra* note 27, at iv; PRODUCTIVITY COMM'N, ANNUAL REPORT 2007-08, at 151 (2008); *see also* PRODUCTIVITY COMM'N, ANNUAL REVIEW OF REGULATORY BURDENS ON BUSINESS – PRIMARY SECTOR § 4.3 (2007), <http://www.pc.gov.au/inquiries/completed/regulatory-burdens/primary-sector/report/primarysector.pdf> [<http://perma.cc/8BUW-UTKE>] (evoking the possibility of a national petroleum regulator).

230. *See* APPEA, BURDENS ON BUSINESS, *supra* note 209, at 4. Note that under the PSLA, and its successor OPGGSA, State laws may operate in Commonwealth waters so far as not inconsistent with the Act and other Commonwealth laws and regulations. *Offshore Petroleum and Greenhouse Gas Storage Act 2006* (Cth) ss 78-94 (Austl.).

231. APPEA, BURDEN ON UPSTREAM PETROLEUM, *supra* note 209, at 7, 13, 35-40.

232. REGULATORY BURDEN REVIEW, *supra* note 27, at 288-89, 291.

233. This remit would be extensible to State waters at their request, as already the case with NOPSA.

234. *Id.* at 292.

F. The Montara Blowout as a Catalyst for Change

The blowout in the Montara field in the waters between Australia and East Timor in August 2009 was crucial to the offshore regulatory reform process in Australia.²³⁵ While it was far less dramatic than the Deepwater Horizon/Macondo blowout in the Gulf of Mexico just seven months later—no lives were lost and a far smaller quantity of oil was spilled—the origins of the incident and the shortcomings it exposed in both company practices and regulatory oversight, were highly similar. These were laid out in full and embarrassing detail in the report of the subsequent inquiry set up by the Commonwealth Minister,²³⁶ which provided the political impetus to bring forward legislation introducing institutional reforms similar to those proposed by the Productivity Commission the previous year.²³⁷

However, instead of creating an economic and environmental regulator to sit alongside NOPSA, the legislation attributed environmental competence to NOPSA, reconstituted as the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA).²³⁸ Although economic control was retained by the Commonwealth Department and the relevant State and Territory Departments, acting as the Joint Authority for adjacent areas, the legislation set up a new agency within the Commonwealth Department, the National Offshore Petroleum Title Administrator (NOPTA), which was responsible for advising the Joint Authorities on all title issues and undertaking the day-to-day administration of titles, including approving title transfers and dealings.²³⁹ Through its advisory functions, NOPTA seems to have also inherited the Designated

235. See AUSTRALIAN GOV'T, DRAFT GOVERNMENT RESPONSE TO THE REPORT OF THE MONTARA COMMISSION OF INQUIRY 2 (2010), <https://industry.gov.au/resource/UpstreamPetroleum/MontaraInquiryResponse/Documents/response-to-montara-inquiry-report.pdf> [<http://perma.cc/763J-H6N5>] (explaining how the Montara and BP Macondo incidents led the Australian government to implement protocol to predict and avoid future problems).

236. BORTHWICK, *supra* note 5, at 7-8.

237. *Offshore Petroleum and Greenhouse Gas Storage Amendment (National Regulator) Act 2011* (Cth) sch 2 pt 1 (Austl.).

238. *Id.*

239. *Id.*

Authorities' implicit function of monitoring compliance with all aspects of title-holder performance that do not fall within the express competence of NOPSEMA, such as compliance with permit work programs and Field Development Plans.²⁴⁰ These changes effectively concentrated all hands-on regulatory competence for the Commonwealth offshore in NOPSEMA and NOPTA.

The difference between NOPSEMA and NOPTA is evident from their titles. NOPSEMA, like NOPSA, is a statutory body corporate with its own board and chief executive officer, and has its own legislative mandate, with responsibilities including occupational health and safety; structural integrity of facilities, wells, or well-related equipment; and environmental management.²⁴¹ Additionally, the Minister's powers of direction over NOPSEMA are restricted.²⁴² Its responsibilities were extended in 2014 when, under revised Petroleum (Environment) Regulations and a delegation scheme under the EPBC Act, it took over the Commonwealth Department of the Environment's role of environmental assessment of offshore petroleum projects under the EPBC Act—eliminating at least one of the duplicated controls the industry had been complaining about.²⁴³

In comparison, NOPTA is a branch of the Department of Industry, which receives all applications related to offshore titles and is responsible for assessing and advising on them.²⁴⁴ NOPTA also has statutory responsibility for titles administration and data management functions in relation to offshore petroleum

240. See *Offshore Petroleum and Greenhouse Gas Storage Amendment (Resource Management and Administration) Regulations 2011* (Cth) regs 1.05, 4.02-.05 (Austl.) (referring to greenhouse gas assessment permits, greenhouse gas injection licenses, and petroleum production title-holders and licenses as examples of permits and programs now under the control of NOPTA).

241. *Offshore Petroleum and Greenhouse Gas Storage Act 2006* (Cth) s 646 (Austl.).

242. A direction "must not relate to regulated operations at a particular facility." *Id.* at s 692(2).

243. See AUSTRALIAN GOV'T, STREAMLINING OFFSHORE PETROLEUM ENVIRONMENTAL APPROVALS: PROGRAM REPORT 5 (2014), <https://www.environment.gov.au/system/files/pages/06872cd4-b755-4ecf-a4e7-dd16145e1384/files/offshore-program-report.pdf> [http://perma.cc/AM9M-MQJ7]; *Offshore Petroleum and Greenhouse Gas Storage Legislation Amendment (Environment Measures) Regulation 2014* (Cth) sch 1 (Austl.).

244. *Offshore Petroleum and Greenhouse Gas Storage Act 2006* s 695(B)(1).

activities in Commonwealth waters.²⁴⁵ Its head, referred to in OPGGSA as the Titles Administrator, may enjoy some independence in the exercise of these latter responsibilities but is otherwise subject to the hierarchical control of the Minister.²⁴⁶

While the States and the relevant Territories can still formally participate in major decisions through the preservation of the Joint Authority device,²⁴⁷ the other changes essentially deprive their petroleum departments of all day-to-day contact with activities in Commonwealth waters.²⁴⁸ The Productivity Commission did not envisage the retention of the Joint Authority,²⁴⁹ which the government explained only by saying that it ensured “that the states and territories have proper input into resources development issues in Commonwealth offshore areas.”²⁵⁰ The effect of these changes is to keep economic control decisions in the hands of politically-responsible departments (as in Norway) rather than with independent regulators, though (again, as in Norway) a specialist agency, NOPTA, is tasked with providing expert advice.²⁵¹ The long-term significance of preserving the Joint Authority system is not easy to judge. Deprived of their hands-on regulatory functions as Designated Authorities, State petroleum departments may find their knowledge of activities in Commonwealth waters growing stale and their influence correspondingly diminished. This may be accelerated by the fact that, consistent with the removal of Designated Authority responsibilities, the national regulator reforms have removed the funding provided by registration fees.

245. *Id.*

246. See *Offshore Petroleum and Greenhouse Gas Storage Amendment (Resource Management and Administration) Regulations 2011* (Cth) reg 8.07 (Austl.).

247. See *Offshore Petroleum and Greenhouse Gas Storage Act 2006* s 56 for each offshore area as defined in *Offshore Petroleum and Greenhouse Gas Storage Act 2006* s 7.

248. See REGULATORY BURDEN REVIEW, *supra* note 27, at 45, 47 (noting that States and relevant Territories retain the possibility of exercising powers under State legislation applicable in these waters).

249. The Commission clearly envisaged that any form of national regulatory system, other than one restricted to a national pipeline authority, would be accompanied by the disappearance of the Joint Authority/Designated Authority system. *Id.* at 246, fig. 9.1.

250. AUSTRALIAN GOV'T, *supra* note 235, at 3.

251. See REGULATORY BURDEN REVIEW, *supra* note 27, at 241-42.

Registration fees were transferred to the Commonwealth²⁵² and have since been replaced by regulatory levies as funding sources of NOPTA and NOPSEMA: regulation is now industry-funded.²⁵³ This has substantially reduced the resources of at least some State and territory petroleum departments.

NOPTA and NOPSEMA brought changes to the style of regulation. One state regulator described NOPTA's approach as "more strongly driven by adherence to the general guidelines, and less shaped by the particular operational context" than was the case with the Designated Authorities.²⁵⁴ In contrast, the Designated Authorities were prepared to act more flexibly, e.g., by accelerating approvals if requested, which could be particularly effective when they also regulated safety and environmental matters. For example, an explorer who suddenly found that a rig to drill an exploration well became available earlier than planned could speedily obtain the required consents in order to commence drilling.

This approach by the Designated Authorities can be explained by familiarity with the specific characteristics of the activities they were supervising, as well as the fact that State or Territory ministers and their departments have a wider problem-solving responsibility in dealing with their portfolio and ultimately answer to the legislature, the media, and the public.²⁵⁵

252. *Offshore Petroleum and Greenhouse Gas Storage Amendment (National Regulator) Act 2011* (Cth) schs 1, 3, 4 (Austl.).

253. Levies, based on the cost of regulatory operations, to support the different activities of NOPSEMA, and the titles administration activities of NOPTA, are imposed by the *Offshore Petroleum and Greenhouse Gas Storage (Regulatory Levies) Act 2003* (Cth) (Austl.) by reference to the detailed rules and amounts set out in the *Offshore Petroleum and Greenhouse Gas Storage (Regulatory Levies) Regulations 2004* (Cth) regs 14, 60 (Austl.). NOPSAs have been funded this way since its creation. Payments to NOPTA in respect of transfers and dealings are now imposed by *Offshore Petroleum and Greenhouse Gas Storage Act 2006* (Cth) s 516A(3) (Austl.), which stipulates that "a fee must not be such as to amount to taxation." The fees are fixed by the *Offshore Petroleum and Greenhouse Gas Storage Amendment (Resource Management and Administration) Regulations 2011* (Cth) sch 6 (Austl.), and presently amount to \$7180 for a transfer application and \$2950 for a dealing. *Schedule of Fees*, NAT'L OFFSHORE PETROLEUM TITLES ADM'R (Nov. 9, 2013), http://www.nopta.gov.au/_documents/scheduleOfFees-20131109.pdf [<http://perma.cc/BT6C-KUSW>].

254. Chandler & Daintith, *Style*, *supra* note 6, at 40.

255. See Terence Daintith, *State-Company Relations in Offshore Oil Exploitation: Regulatory and Contractual Analyses*, in *REGULATING ENERGY AND NATURAL RESOURCES*

Legitimate State and Territory concerns relating to the operation of offshore titles might be wider than those explicitly referenced in OPGGSA guidelines and regulations. For example, the depletion of offshore aquifers as a result of oil and gas production may prejudice both future production, because of loss of pressure, and, if these are freshwater aquifers that extend onshore (like the Latrobe Group aquifer in Gippsland, Victoria), future water availability onshore.²⁵⁶ Designated Authorities may have found it easier to take such issues into consideration than NOPTA would.²⁵⁷

The immediate result of the national regulator reforms as they affect State and Commonwealth competences has thus been to add unified regulation of structural integrity and environmental issues to health and safety, via NOPSEMA, along with a single source of expertise and advice on economic control and resource management matters through NOPTA. Concentrating scarce skills and competences in these two national regulators, rather than having them spread thinly across a number of Designated Authorities, was one of the justifications for the reforms,²⁵⁸ and should contribute to raising average standards of regulatory performance and achieving consistency of regulation around Australia. However, it does not address cross-jurisdictional problems of regulatory duplication and delay—of which the industry had complained—unless the States consent to hand over their powers relating to coastal and internal waters.

267, 277 (Barry Barton et al. eds., 2006) (providing general comments about the difference of approach to petroleum administration between State and Commonwealth authorities).

256. VICTORIA GOV'T, GAS MARKET TASKFORCE: FINAL REPORT AND RECOMMENDATIONS 5, 23-24 (2013).

257. *See id.* at 23-24 (suggesting that amendments to the OPGGSA will be needed to require water licenses in situations where aquifers are connected, either between onshore or offshore sources or at different depths).

258. AUSTRALIAN GOV'T, *supra* note 235, at 2.

VII. REACTIONS TO MONTARA AND MACONDO

A. *Introduction*

Outside of Australia, the impact of the Montara blowout in August 2009 was completely overshadowed by the Deepwater Horizon/Macondo blowout in the Gulf of Mexico just seven months later. Subsequent investigations and appraisals by regulators and industry bodies elsewhere focused almost exclusively on the Macondo incident and the regulatory reactions in the United States.²⁵⁹ Certainly both incidents resulted in common institutional changes in the United States and Australia: the separation of any economic and policing responsibilities that were still merged. However, as we have seen, the Montara context was more complicated, in that it not only raised the issue of conflict of regulatory objectives in the same agency, but it also involved agencies of different *types*—that is to say, politically-responsible departments and specialist non-political agencies—as well as agencies operating at different *levels* within federal constitutional arrangements. This situation had much more in common with that facing the European Union authorities than did the United States' case of a conflicted agency, the Minerals Management Service (MMS), operating at the federal level within a presidential system and with no state involvement.

Nonetheless, because the American institutional response, in the shape of the splitting up of MMS, came more quickly (precisely as a result of this simpler context), it was much more prominent in European thinking about institutional reform. So far as the two leading European petroleum producers were concerned, however, the Macondo incident and the resulting changes in the United States did not seem to call for any radical change in policies or institutions. While both the Norwegian and United Kingdom governments commissioned reviews to consider what lessons for regulatory arrangements should be drawn from these incidents and reactions in the United States, neither review led directly to changes. In Norway, the reviews conducted by the

259. *E.g.*, GEOFFREY MAITLAND, OFFSHORE OIL AND GAS IN THE UK—AN INDEPENDENT REVIEW OF THE REGULATORY REGIME (2011); Weaver, *Business as Usual*, *supra* note 7, at 161-62; NAT'L COMM'N, *supra* note 4.

Petroleum Safety Authority and others of the Deepwater Horizon accident and the associated investigation reports concluded that the accident did not “challenge the central principles in PSA’s regulations, such as the division of responsibility for regulatory compliance and requirements for systematic and risk-based compliance with functional requirements.”²⁶⁰ The main finding from these analyses was the need for better risk management and risk-based supervision.²⁶¹ In the United Kingdom, the government-commissioned Maitland Review recommended establishing more formal mechanisms to ensure seamless, strategic, and coordinated working between the different regulatory authorities,²⁶² but this recommendation was very quickly overtaken by the need to deal with the sweeping proposals that emerged within the European Union in reaction to Macondo—proposals that were seen as a significant threat to the integrity and effectiveness of the United Kingdom system.

B. The European Union Proposals

The European Commission initiated an investigation of offshore safety in EU waters in May 2010, and its first Communication, in October 2010, identified a need for action at EU level in five areas to maintain the safety and environmental credentials of the European Union:

- thorough licensing procedures,
- improved controls by public authorities,
- addressing gaps in applicable legislation,
- reinforced EU disaster response, and
- international cooperation to promote offshore safety and response capabilities worldwide.²⁶³

The Commission took the view that because offshore safety in

260. PETROLEUM SAFETY AUTH. NOR., CONCLUDING REPORT ON ITS FOLLOW-UP OF THE DEEPWATER HORIZON ACCIDENT 9 (2014), <http://www.iadc.org/wp-content/uploads/2016/05/PSA-concluding-report-on-its-follow-up-of-the-DWH-accident-FEB-2014.pdf> [<http://perma.cc/939G-VBZP>].

261. *Id.* at 10-11.

262. MAITLAND, *supra* note 259, at 51.

263. *Communication from the Commission to the European Parliament and the Council on Facing the Challenge of the Safety of Offshore Oil and Gas Activities*, at 2-3, COM (2010) 560 final (Oct. 12, 2010).

Europe was largely addressed by provisions in the national legislation of individual Member States, the regimes for licensing, operational safety, and environmental protection varied from one Member State to the next.²⁶⁴ The Commission claimed that this heterogeneity complicated the understanding and management of health, safety, and environmental risks in Europe and resulted in increased costs for companies.²⁶⁵ Importantly, there was also an increased risk of slowing down a coordinated response to accidents affecting several Member States.²⁶⁶ The Commission concluded that “the risks at stake, the need for legal certainty and the principles of ‘better regulation’ speak . . . in favour of a single new piece of specific legislation for offshore oil and gas activities, possibly supported by soft legal measures (guidelines).”²⁶⁷ The Commission’s language echoes the concerns that led the Australian government, in 2008, to launch an inquiry by its Productivity Commission into, among other things, “options for a national regulatory authority . . . to manage all regulatory approvals for the upstream petroleum industry as a means of addressing issues of regulatory duplication and inconsistencies.”²⁶⁸

In Australia, however, in the eyes of companies and their representative body, APPEA, the advantage of permitting the same (State) regulator to deal with all phases of an offshore project,²⁶⁹ was outweighed by the difficulties in dealing with the volume of approvals required by State and Commonwealth authorities, the duplication of controls, and the regulatory demands of the multiple legislative regimes applicable to cross-jurisdictional projects.²⁷⁰ However, the consequent reform proposals only addressed the regulation of activities in Commonwealth waters, making any extension of the new

264. *Id.* at 4.

265. *Id.*

266. *Id.*

267. *Id.* at 4-5.

268. REGULATORY BURDEN REVIEW, *supra* note 27, at iv; *see* sources cited *supra* note 229.

269. These phases span from exploration through to landfall and onshore processing (albeit under different legislative authorities). *See supra* Section VI.

270. APPEA, BURDEN ON UPSTREAM PETROLEUM, *supra* note 209, at 7, 13, 35-40.

regulators' competence to State waters a matter requiring State agreement.²⁷¹ This essentially made the reform proposals largely unresponsive to the industry complaints stemming from the Designated Authority system: until States gave a new Commonwealth regulator jurisdiction over, at least, their coastal waters,²⁷² State-Commonwealth duplication and inconsistency would continue. It should be noted that no industry respondent to the Productivity Commission complained about inconsistent practice by State petroleum departments as Designated Authorities.

In light of the Australian experience, it would seem quite surprising if companies involved in oil and gas exploration and production had complained to the Commission about inconsistencies between national regimes within the European Union. In fact, the Commission's impact statement, attached to its initial proposal for a European offshore safety regulation, provided only one isolated example of a suggestion for harmonization of offshore rules.²⁷³ Instead, its accounts of industry responses on the identified issues point towards a general industry skepticism about any across-the-board EU intervention.²⁷⁴ For example, while acknowledging that some countries' regulatory approach and capacities might be inadequate, respondents suggested that the European Union

271. *Id.* at 7.

272. So far, only Victoria has delegated competence over health and safety to NOPSEMA. This also required it to delegate competence over structural integrity of facilities and wells. Other States have not done this, which has had the effect of causing their delegations of health and safety to NOPSEMA to lapse on Jan. 1, 2013. No State has delegated environmental competencies. See NAT'L OFFSHORE PETROLEUM SAFETY & ENVTL. MGMT. AUTH., NOPSEMA ANNUAL REPORT 2012-13, at 23 (2013), <https://www.nopsema.gov.au/nopsema-annual-report-2012-2013/document.html> [http://perma.cc/K2LR-JU43]; see also APPEA, BURDEN ON UPSTREAM PETROLEUM, *supra* note 209, at 24 (describing issues with the Designated Authorities).

273. *Commission Staff Working Paper, Impact Assessment Accompanying the Proposal for a Regulation of the European Parliament and of the Council on Safety of Offshore Oil and Gas Prospection, Exploration and Production Activities*, at 78, SEC (2011) 1292 final (Oct. 27, 2011) (suggesting that the harmonization of procedures, standards, and equipment could make it possible to grant a drilling contractor a certificate to operate in all EU waters).

274. *Id.* at 77-78.

work individually with such countries to raise standards.²⁷⁵ If anything, national regulators were even more emphatic about the risk that EU-wide regulation might inadvertently undermine the effectiveness of the existing regulatory and supervisory regimes in the oil-producing countries, especially around the North Sea.²⁷⁶

These reactions did not deter the Commission from proposing a regulation with a range of new obligations designed to help prevent major offshore incidents and to deal better with the consequences should they occur. In October 2011, the Commission proposed that the Community rules take the form of a Regulation; making these rules immediately applicable as law in each member State and displacing existing national law to the extent of any inconsistency.²⁷⁷ The United Kingdom saw this as dangerously disruptive, unnecessarily expensive, and a threat to the quality and effectiveness of the national safety and environmental regime,²⁷⁸ which—as the Commission’s impact statement itself suggested—had performed satisfactorily since the post-Piper Alpha reforms.²⁷⁹ During the course of the EU legislative process, this objection was met by its transformation from a regulation to a directive.²⁸⁰ Its legal basis was the environmental provisions of the EU Treaty, specifically Article 192(1), providing the legislative powers to enable the EU organs to implement the European Union’s environmental objectives.²⁸¹

275. *Id.*

276. *See id.* at 79 (stating that EU member countries expressed concerns about other members with newer oil and gas industries).

277. *Id.* at 133.

278. *Oil & Gas UK Warns Against European Commission Weakening UK’s Offshore Safety Regime*, OIL & GAS UK (Jan. 31, 2012), <http://oilandgasuk.co.uk/oil-gas-uk-warns-against-european-commission-weakening-uks-offshore-safety-regime/> [<http://perma.cc/W9Z8-785Z>].

279. *Commission Staff Working Paper*, *supra* note 273, at 6, 12, 36 (showing how offshore accidents in the North Sea have reduced and safety indicators from the UK Continental Shelf have improved since the Piper Alpha accident).

280. *Id.* at 34, 64 & n.124. Directives are the form of EU legislation which, in principle, leaves member states free to determine how to give effect to its provisions within their own domestic law. *Regulations, Directives and Other Acts*, EUROPEAN UNION, https://europa.eu/european-union/eu-law/legal-acts_en [<http://perma.cc/X5J5-2H6H>] (last visited Oct. 13, 2016).

281. Consolidated Version of the Treaty on the Functioning of the European Union, art. 192(1), Dec. 13, 2007, 2012 O.J. (C 326) 47. The objectives in Article 191(1) includes

With this hurdle overcome, the government and Oil and Gas UK, the industry body, were largely content with a proposal that had many important points in common with the conclusions of its own post-Macondo review.

The Directive's focus is on major accidents and hazards, establishing "minimum requirements for preventing major accidents in offshore oil and gas operations and limiting the consequences of such accidents."²⁸² Each member state is required to appoint a "competent authority" to supervise the activities of licensees and operators and ensure compliance with the Directive's requirements and specific functions of approval of key documents, notably a "major hazards" report to be submitted in advance of operations by drilling rigs and production installations, identifying risks of major accidents.²⁸³ This report must be accepted by the competent authority as a pre-condition of operations.²⁸⁴ Other documents that must be submitted with the report include the corporate major accident prevention policy of the operator or owner, the installation's safety and environmental management system, and the arrangements made for independent verification of safety and environmental-critical elements relating to the installation of and plans for the drilling of wells.²⁸⁵

Among other requirements on matters such as public consultation, environmental liability, and operations outside the European Union, the Directive also imposes obligations on member States to take safety and environmental considerations into account in particular ways when granting or transferring licenses, appointing operators, or approving their appointment by

both "preserving, protecting and improving the quality of the environment" and "prudent and rational utilisation of natural resources." *Id.* art. 191(1).

282. Council Directive No. 2013/30, art. 1, 2013 O.J. (L 178) 66, 73 (EU).

283. *Id.* arts. 6(5), 37. In Article 2(17), oil rigs fall within the Directive's definition of "non-production installations." In Articles 2(1) and 2(37), major accidents are defined by the Directive to include explosion, fire, loss of well control, or release of oil, gas or dangerous substances, or serious damage to an installation involving, or with a significant potential to cause, fatalities or serious personal injury, other incidents involving multiple fatalities, and any significant effects or likely effects on the environment arising from any of these causes.

284. *Id.* art. 11.

285. *Id.*

the licensee.²⁸⁶ Noteworthy here is the idea that the member State needs to consider the technical and financial capability of the applicant in relation to the environmental and other risks in the specific area where the license is sought and the particular stage of oil and gas operations it covers. The licensing authority is required to consult, where appropriate, the competent authority when making its decision.²⁸⁷

C. The Norwegian Response

While Norway is not a member of the European Union, as a member of the European Economic Area (EEA)—created in 1992 to connect countries of the former European Free Trade Area with the European Union—it has accepted an obligation to apply new EU rules that fall within the scope of the EEA Agreement in return for comprehensive access to the Single European Market.²⁸⁸ While the EEA Agreement's main concern is with the four basic single market freedoms (movement of goods, labor, service, and capital), it also applies competition rules and the EU environmental policy on which the Directive was based.²⁸⁹ Norway has, however, maintained at all stages that the proposal does not fall within the scope of the EEA Agreement because it relates to the exercise of powers on the Norwegian continental shelf, and the shelf is not part of the territory of Norway, to which the obligations of the Agreement are relevant.²⁹⁰

D. The United Kingdom Response

In some EU countries with offshore oil industries—like Italy, Spain, Romania, and Bulgaria—where a prescriptive style of

286. *Id.* art. 4.

287. *Id.*

288. Agreement on the European Economic Area, Jan. 3, 1994, 1994 O.J. (L 1) 3, 5 (EC).

289. *Id.* arts. 1(2), 73-75.

290. *Id.* art. 126; see *EU Warns Norway Against Oil Platforms*, NORDIC PAGE (May 29, 2013), <http://www.tnp.no/norway/panorama/3752-eu-warns-norway-against-oil-platforms> [<http://perma.cc/Z9LF-FA8S>]; *Q&A's with UK, Norwegian Regulators*, DRILLING CONTRACTOR (July 10, 2014), <http://www.drillingcontractor.org/qas-with-uk-norwegian-regulators-29697> [<http://perma.cc/RYX7-3SHS>].

police regulation has been maintained,²⁹¹ the Directive would require radical changes in the national regime in order to accommodate its approach. In the United Kingdom, which was already regulating along the same broad lines as the Directive's, the crucial novelty was the integration of environmental protections with safety risks, a lesson already drawn by the Maitland review from the Macondo and Montara incidents.²⁹² The importance of this, from our perspective, is its impact on the institutional arrangements for offshore regulation. The jurisdiction of the competent authority, as imposed by the Directive, is intended to encompass both the safety and environmental risks of offshore operations, at least with regards to major hazards. As we have seen, this jurisdiction in the United Kingdom has been divided between DECC, now replaced by the Department of Business, Energy and Industrial Strategy (BEIS), for environmental matters, and HSE, for occupational health and safety, and installation and well integrity.²⁹³ To bring these together, the government's choice was the creation of a joint authority—bringing together DECC's Offshore Oil and Gas Environment and Decommissioning Team (OGED) and HSE's Energy Division (ED) under a Senior Oversight Board providing organization and direction—and a forum to agree, implement, and monitor arrangements and pursue shared strategic regulatory goals, but only for those elements of environmental and safety regulation addressed by the Directive.²⁹⁴ The Directive expressly contemplates the possibility that the competent authority “may be comprised of [*sic*] one or more public bodies.”²⁹⁵ OGED and ED will not, however, be detached from their parent bodies—continuing the separate strategies of the two regulators on how to regulate major accident hazards offshore in their respective areas—but the creation of what has been named the Offshore Safety Directive Regulator (OSDR) will, “[f]rom a stakeholder perspective . . . be a move toward more integration

291. *Commission Staff Working Paper*, *supra* note 273, at 26 n.71, 38, 56.

292. MAITLAND, *supra* note 259, at 3-5.

293. *Id.* at 4, 9; *Department of Energy & Climate Change*, *supra* note 107.

294. *OSDR—The Competent Authority*, HEALTH & SAFETY EXEC., <http://www.hse.gov.uk/osdr/authority.htm> [<http://perma.cc/K4BB-52SV>] (last visited Dec. 17, 2016).

295. Council Directive No. 2013/30, *supra* note 282, arts. 2(14), 8(8).

between HSE and DECC in delivering the [Competent Authority] functions.”²⁹⁶

This was the model independently recommended by the Maitland Review, drawing on the positive experience of the Competent Authority established to implement the Control of Major Accident Hazards Regulations 1999 (COMAH),²⁹⁷ and linking the Health and Safety Executive with the Environment Agency in England and the Scottish Environmental Protection Agency in Scotland.²⁹⁸ The Review did point out, however, that “inherent differences in the existing regulatory approaches to safety and the environment mean this would not be straightforward;” the COMAH Competent Authority worked precisely because it was “tasked with the application of a specific regulation.”²⁹⁹ To some extent, the problem of multiple offshore regulations has been eliminated by the promulgation of new regulations, in implementation of the Directive, that replaced the existing safety case regulations in the territorial sea and continental shelf.³⁰⁰ However, these regulations do not affect other environmental controls for which BEIS is the regulator (and which will not come within the competent authority’s jurisdiction),³⁰¹ and, as already noted, the style of these tends to be much more prescriptive than the outcomes-orientated approach of safety case regulation.³⁰² The industry in the United Kingdom was not convinced by this solution to the competent authority requirement. Almost all the industry responses to the government’s consultation on how to implement the Directive

296. *OSDR—The Competent Authority*, *supra* note 294.

297. The Control of Major Accident Hazards Regulations 1999, SI 1999/743 (UK).

298. MAITLAND, *supra* note 259, at 89-90.

299. *Id.* at 90.

300. Offshore Installations (Offshore Safety Directive) (Safety Case etc.) Regulations 2015, SI 2015/398 (Eng.), Explanatory Note.

301. HEALTH & SAFETY EXEC. & DEP’T OF ENERGY & CLIMATE CHANGE, CONSULTATION ON THE IMPLEMENTATION OF DIRECTIVE 2013/30/EU ON THE SAFETY OF OFFSHORE OIL AND GAS OPERATIONS AND AMENDING DIRECTIVE 2004/35/EC, AND ON THE REVIEW OF OFFSHORE APPROVED CODES OF PRACTICE AND THE UPDATING OF ONSHORE UK OIL AND GAS SAFETY LEGISLATION TO COVER EMERGING ENERGY TECHNOLOGIES, 2014, CD 272, § 1.7.

302. *See supra* Section IV.E.

rejected this solution.³⁰³ While most respondents preferred a new unified environmental and health and safety regulator, some would accept one of the other alternatives mooted in consultation: a joint authority covering all environmental and health and safety issues, not just those involved in the Directive; or the transfer of environmental responsibilities to HSE—a change equivalent to the enlargement, in Australia in 2012, of the competence of the National Offshore Petroleum Safety Authority to include environmental matters.³⁰⁴ The main supporters of the approach were trade union representatives, presumably on the basis that this would best maintain the integrity and focus of HSE's concern with occupational health and safety matters.³⁰⁵

Despite the opposition the government persisted with this approach, largely it seems in order to minimize the disturbance of existing machinery of government arrangements; the short time frame to implement the Directive (July 2015) was pleaded as a reason for not attempting a more radical reform.³⁰⁶ Perhaps the new arrangements will work very well, but their complexity must be a matter for concern. The policing functions for offshore oil and gas operations previously divided between two bodies are now distributed among three: BEIS, HSE, and the Competent Authority, with borderlines that are far from clear.³⁰⁷

303. HEALTH & SAFETY EXEC. & DEP'T OF ENERGY & CLIMATE CHANGE, ANALYSIS OF THE RESPONSES TO THE JOINT CONSULTATION BY THE DEPARTMENT OF ENERGY AND CLIMATE CHANGE (DECC) AND THE HEALTH AND SAFETY EXECUTIVE (HSE) (2014), <http://www.hse.gov.uk/offshore/consultation-summary-report.pdf> [<http://perma.cc/6TUN-JLF7>] [hereinafter ANALYSIS OF RESPONSES]

304. *Id.*; see *supra* Section VI.F.

305. For the discussion of responses to Question 1 in DECC and HSE, see ANALYSIS OF RESPONSES, *supra* note 303.

306. *Id.*

307. This has also been identified as a problem in the COMAH implementation structure. See DEP'T FOR BUS. INNOVATION & SKILLS, FOCUS ON ENFORCEMENT REGULATORY REVIEWS: REVIEW OF ENFORCEMENT IN THE CHEMICALS INDUSTRY (COMAH) 14-15 (2013), https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/77153/bis-13-557-review-of-enforcement-in-chemicals-industry-comah.pdf [<http://perma.cc/SQ6Q-A5EU>]. But see *COMAH Competent Authority Proposals for Implementing Findings from the Focus on Enforcement Review of the Chemicals (COMAH) Sector*, COMAH COMPETENT AUTH. 3 (2013), <http://www.hse.gov.uk/comah/bre-review/index.htm> [<http://perma.cc/J27G-9JSX>] (describing the overlap between regimes and how the proposals seek to improve how the competent authority interacts with businesses).

The government's solution also seemed to raise one of the issues prominently flagged in general regulation literature: the place of an independent regulator with a clear remit in offshore regulatory arrangements. The framers of the Directive clearly attached importance to this notion, which they mention no less than three times. Article 8(2) requires that member states ensure the independence and objectivity of the Competent Authority and the absence of any conflicts of interest between the regulatory functions of the Authority and those relating to economic development, licensing, and collection and management of revenue; Article 8(3) says that the Competent Authority's regulatory functions must be "carried out within an authority that is independent" of any of those functions; and Article 9(a) requires that the Competent Authority "acts independently of policies, regulatory decisions or other considerations unrelated to its duties under this Directive."³⁰⁸ However, OGED, the environmental component of the United Kingdom's Offshore Safety Directive Regulator, remains part of BEIS (formerly part of DECC) under the direct political responsibility of the same Minister as has, since 1964, been responsible for licensing.³⁰⁹

The problem of reconciling this with the independence criterion was of very short duration. A review commissioned by the government and conducted in 2014 by a leading industry figure, Sir Ian Wood, recommended that in order to achieve the maximum economic recovery from the remaining fields on the United Kingdom Continental Shelf, a new and more co-operative approach from licensees, particularly in the use of infrastructure, was required, along with the creation of a specialist regulator to take over the economic functions of DECC, which Wood felt was too understaffed and under-resourced to be effective.³¹⁰ Accepted by the government and largely endorsed by the industry, these recommendations have been implemented in two stages. First, the Infrastructure Act 2015 gave the relevant Minister, the Secretary of State for Energy, additional powers to enforce the

308. Council Directive No. 2013/30, *supra* note 282, arts. 8(2), 8(3), 9(1).

309. *OSDR—The Competent Authority*, *supra* note 294.

310. IAN WOOD, UKCS MAXIMISING RECOVERY REVIEW: FINAL REPORT 7, 20-21, 56 (2014), https://www.ogauthority.co.uk/media/1014/ukcs_maximising_recovery_review.pdf [<http://perma.cc/6EJE-T23X>].

approach recommended by Wood, and provided for the financing of relevant regulatory costs by a levy on the industry.³¹¹ Second, the Energy Act 2016 established the new regulator, the Oil and Gas Authority (OGA), as a government-owned company.³¹² The 2016 Act specified the general objectives of OGA, and provided for the transfer to it of the new powers under the Infrastructure Act as well as the Minister's economic regulatory powers to grant and administer licenses and certain statutory authorizations.³¹³ It also conferred on OGA the responsibility for developing and applying the strategy required to achieve maximum economic recovery, which licensees are now bound to comply with.³¹⁴

While the Minister retains the power to give directions in the public interest to OGA, which extends in exceptional circumstances to the exercise of OGA's regulatory powers in particular cases, the distance created by these reforms between the actions of OGA and the exercise of the environmental powers that either continue to repose in BEIS or have been assigned to OSD R certainly seems sufficient to satisfy the requirements of the Directive. At the same time, OGA, though independent, will need to co-operate closely with OSD R when discharging its powers of granting licenses and approving license transfers, functions subject to environmental and safety tests under the Directive and the implementing regulations.³¹⁵ Although OGA is obliged to consult OSD R only "where appropriate,"³¹⁶ it would be surprising, and likely to produce considerable potential confusion, if OGA were to attempt to develop its own expertise on such matters.

Therefore, while the creation of OGA will satisfy the structural requirements of the Directive, its main significance in

311. Infrastructure Act 2015, c 7 § 45 (UK).

312. Energy Act 2016, c. 20 § 1 (UK).

313. *Id.* §§ 2-3.

314. *Id.* pt. 1. For more details about OGA requirements to maximize economic relief of petroleum, see DEPARTMENT OF ENERGY & CLIMATE CHANGE, MAXIMISING ECONOMIC RECOVERY STRATEGY FOR THE UK, 2006, 16D/023 (UK), https://www.ogauthority.co.uk/media/1022/mer_uk_strategy.pdf [<http://perma.cc/K32N-AMZZ>].

315. Council Directive (EU) 2013/30, *supra* note 282, art. 4; Offshore Petroleum Licensing (Offshore Safety Directive) Regulations 2015, SI 2015/385, art. 3 (UK).

316. Council Directive (EU) 2013/30, *supra* note 282, art. 4(2); Offshore Petroleum Licensing (Offshore Safety Directive) Regulations 2015, SI 2015/385, art. 3(1)(b) (UK).

the framework of this analysis is that it represents a decisive step away from the traditional concession model, as applied in oil and gas. Under this model, key decisions in the economic management of offshore operations remain in the hands of a politically-responsible authority, linked to those performing the operations through an exclusive concession. This model has been varied or adjusted in a number of ways since offshore operations began in earnest in our subject countries over the last half-century:

- by the progressive supplementation or replacement of obligations expressed in the concession with statutory obligations in Norway, the United Kingdom, and Australia;
- by distinguishing key decisions, notably award and transfer of concessions, from matters of more routine management;
- by confiding decisions of the latter type to a separate body (in Norway, to NPD; in Australia, to the Designated Authorities and, latterly, to the National Petroleum Titles Administrator (NOPTA)); or
- by setting up a distinct body as an expert adviser to the key decision-maker (a role of NPD in Norway and of NOPTA in Australia).

Only the United Kingdom, which has until now faithfully adhered to the traditional concession model, has been prepared to countenance the allocation and strategic management of the national resource represented by offshore petroleum to a body without direct democratic responsibility.³¹⁷ However, even here, the government has been careful to choose a structure for its regulator—that of a government-owned company—which gives the Minister, through his position as sole shareholder, extensive scope for control additional to the directions powers specified in the Energy Act.³¹⁸

317. Daintith, *supra* note 255, at 271.

318. DEP'T OF ENERGY & CLIMATE CHANGE & OIL & GAS AUTH., OIL AND GAS AUTHORITY FRAMEWORK DOCUMENT 31 (2015), https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/420028/OGA_Framework_Document_April_2015.pdf [<http://perma.cc/X3EP-2QD4>]. This document was withdrawn on October 6, 2016, and the OGA's new regulatory framework can be found on its website. *OGA Framework*

VIII. CONCLUSION: OFFSHORE MANAGEMENT AND REGULATORY THEORY

What do these three specific experiences of parallel regulatory development over the past fifty years tell us about regulatory theory? And how useful are the general principles of good regulation, so intensively discussed over the last decade or two, as a basis for critique and improvement of the current state of offshore oil and gas regulation?

A. *The Independent Regulator Concept*

First, it should be pointed out that until the 21st century, general ideas about regulation had no discernible influence on the regulatory development we have described. This is hardly surprising: outside the United States, “regulation” was not discussed as a concept until more than a decade after these offshore regimes were first shaped.³¹⁹ Instead, discussion focused on government policy, control, management, and intervention, in ways that offered no space to elaborate on ideas about good or better procedures that might apply across a broad range of such activities.³²⁰ Discussion among lawyers did not get beyond general administrative law principles, like natural justice or *ultra vires*; even here, the ideas that would give some substantive significance to such principles were only just beginning to be elaborated when the oil and gas era arrived in the North Sea and Australia.³²¹ In any event, these administrative law ideas were not axiomatically applicable to a relationship between governments and companies characterized—as was the case with offshore petroleum exploration and development—by a strong element of joint enterprise in pursuit of a common goal, evoking contractual concepts at least as strongly as administrative law

Document, OIL & GAS AUTHORITY, <https://www.ogauthority.co.uk/news-publications/publications/2016/oga-framework-document/> [http://perma.cc/6JMH-CD3X] (last visited Feb. 24, 2017).

319. See T.C. Daintith, *A Regulatory Space Agency?*, 9 OXFORD J. LEGAL STUD. 534, 534-35 (1989).

320. See *id.* at 536-37 (describing the common uses of the term “regulation”).

321. This was done in the United Kingdom through decisions like *Ridge v. Baldwin* [1964] AC 40 (HL), and *Padfield v. Minister of Agriculture* [1968] AC 997 (HL).

ones.³²²

The national regimes were in fact shaped by ideas and circumstances specific to the industry and the place of development. The United Kingdom, coming first, simply borrowed from an onshore regime that was an adaptation to circumstances of public resource ownership of the contractual relationship between mineral owner and petroleum producer expressed in U.S. oil and gas leases, developed since the 1860s.³²³ A year or two later, Norway blended elements of the United Kingdom regime with its own experience of using the concession device to manage its hydro-electric resources.³²⁴ Australia's idiosyncrasy of choosing a highly detailed and purely administrative regime managed by the States on behalf of the Commonwealth can be attributed to the special circumstance of Commonwealth-State conflict over offshore rights, with the adoption of an unusually complex system of separate exploration and production rights reflecting experience gained by the States over many decades of managing hard-rock mining.³²⁵

In each case the initial result was the adoption of a concessionary or, in Australia, quasi-concessionary model, with politically-responsible authorities directly exercising control. In the following decades, the separation of the legal regime of police regulation (health and safety, environmental protection) from economic regulation tended to take place initially within this unified institutional structure, with the core authorities³²⁶ applying both the economic provisions of the license document and the different forms of police regulation: the specialized regime of the Mineral Workings (Offshore Installations) Act in the United Kingdom, the safety decrees in Norway, or the "Schedule of Specific Requirements" in Australia. It took time in the different jurisdictions for this separation of the substance of economic and police regulation to be reflected in institutional

322. Daintith, *supra* note 255, at 267-91.

323. DAIN TITH, *supra* note 52, at 317-24.

324. RYGGVIK, *supra* note 126, at 13-17.

325. DAIN TITH, *supra* note 52, at 328-29; *see supra* Section VI.A.

326. The core authorities are the Department of Industry or Energy in the United Kingdom, the Ministry of Industry in Norway, or the Designated and Joint Authorities in Australia.

arrangements, and the reasons for institutional change were, again, varied and not necessarily connected with the developing regulatory wisdom. In the United Kingdom in 1992, and in Australia in 2012, poor regulatory performance evidenced by a post-disaster inquiry led to the transfer of DECC's safety functions and the Designated Authorities' environmental and well-integrity functions.³²⁷ The transfer in Australia in 2005 of Designated Authorities' safety functions to an independent specialist regulator likewise followed an independent inquiry, whose commissioning was at least in part prompted by disaster elsewhere: the *Piper Alpha* tragedy.³²⁸

There was, however, a significant shift in the discourse of reform between the Cullen Report of 1990 and the contributions of the Australian Productivity Commission in 2009 and the European Commission in 2011. Cullen, like his predecessor Burgoyne, looked at the issue of independence of the regulator charged with police functions.³²⁹ For them, however, the issue was one of fact, rather than principle. With no evidence that the Department's Petroleum Engineering Division was influenced by extraneous considerations relating to production rates and levels when performing its regulatory tasks, these inquiries were not prepared to suggest institutional change to guarantee a principle of independence: Cullen's switch to HSE was motivated mainly by his conviction that HSE was much better equipped to carry outcomes-based regulation into effect.³³⁰ In contrast, for the Productivity Commission and the European Commission, institutional independence was a principle that did not require evidence of damaging conflicts of interest³³¹ but rather should be legally guaranteed, even at the cost of multiplying the number of regulatory authorities and creating the new problem of assuring adequate liaison and co-operation between them. Indeed the Productivity Commission reached this conclusion despite having an alternative model of fully-integrated economic and police

327. See *supra* Part VII.

328. See *supra* Section IV.D.

329. CULLEN REPORT, *supra* note 98, ch. 21; see *supra* Section IV.D.

330. CULLEN REPORT, *supra* note 98, ¶¶ 22.5, 22.34-.38; see *supra* Section IV.D.

331. REGULATORY BURDEN REVIEW, *supra* note 27, at 271; *Commission Staff Working Paper*, *supra* note 273, at 54.

regulation represented by the highly-regarded South Australian onshore regime.³³²

Norway's progression in this direction has been rather different. It started earlier, with the recognition in 1979 that there was a separate policy interest in health and safety that ought to be entrusted to the Ministry of Labour instead of the industry's sponsoring department.³³³ However, this did not require completely separate administrative arrangements: the Norwegian Petroleum Directorate carried out both functions but reported on each function to a different Ministry until the creation of the Petroleum Safety Authority in 2004.³³⁴ Since its inception in 1981, environmental control has been subject to a separate legal regime and institutional responsibility. The steps on this path of development appear to have been meditated more calmly than in the United Kingdom and Australia and owe more to general ideas about how regulation should be carried out rather than reactions to crisis. When crisis did strike in Norway, in the shape of the *Alexander L. Keilland* disaster, the lesson drawn was the need to ensure better integration of the action of the different regulatory authorities by conferring a formal role of coordinator and interface with the industry on NPD—a position later inherited by PSA.³³⁵

B. The Separation of Policy-Making from Regulation and Administration

Before further considering this tension between independence and coherence, another idea emphasized by the Productivity Commission should be discussed: the advantages of separating policy and administrative functions, a category in which regulatory functions—so far as they involve individual decisions as opposed to rule-making—may be subsumed. While this idea has a long history in Scandinavian countries, including Norway, it does not fit as easily into the traditional notions of comprehensive ministerial responsibility, for both individual and

332. REGULATORY BURDEN REVIEW, *supra* note 27, at 271-72.

333. NORWEGIAN PETROLEUM DIRECTORATE, *supra* note 142, at 13, 104.

334. *See supra* Section V.C.

335. *See supra* Section V.D.

general decisions, that have been central to United Kingdom and Australian executive organization. When the United Kingdom accepted the idea of a generalized separation of policy and administration in the form of “Next Steps” agencies in the 1980s, it did not contemplate independent agencies—Ministers continued to be politically responsible for all the work of their Departments.³³⁶ They also did not extend the program to offshore administration: while there was functional separation between activities like licensing, engineering, and environmental control, the same people were involved both in making individual decisions and in contributing to the development of policies, rules, and guidelines.³³⁷ Only in 2014 did an executive agency appear in this field, when, in response to the Wood Review, the Oil and Gas Authority was set up in this form pending its legislative recognition by Part 1 of the Energy Act 2016.³³⁸ A broadly similar development in Australia was the creation of the National Offshore Petroleum Titles Administrator in 2012 to take over certain (relatively) routine administrative and regulatory functions previously discharged by politically-responsible state Petroleum Departments as Designated Authorities.³³⁹ NOPTA did not, however, take over, as OGA has, responsibility for the more important individual decisions: allocation and renewal (or withdrawal) of permits, leases, and licenses, or approval of field development plans, unitization schemes, and other resource management decisions. These continue to be reserved to the Joint Authorities, formally constituted of the Commonwealth Minister and the relevant state Minister.³⁴⁰ Here, NOPTA’s role is an advisory one.³⁴¹ The same is true of the Norwegian system, where the Minister of Energy awards licenses and makes other key individual decisions, with advice from NPD.³⁴²

336. *See supra* Section II.C.

337. *See supra* Section II.C.

338. Energy Act 2016, c. 20 § 1 (UK); *see supra* Section VII.D.

339. *See supra* Section VI.F.

340. ATTORNEY-GENERAL’S DEP’T, *supra* note 176, at 4, 7-8.

341. *See supra* notes 237-39.

342. MINISTRY OF PETROLEUM & ENERGY, FACTS 2014: THE NORWEGIAN PETROLEUM SECTOR 28-29 (2014), http://www.npd.no/Global/Engelsk/3-Publications/Facts/Facts2014/Facts_2014_netto.pdf [<http://perma.cc/7RUV-PME5>].

Looking at current arrangements for environmental and health and safety regulation in our subject countries, it is clear that a side-effect of the adoption of the independent regulator concept in these areas has been a separation of regulatory decision-making from policy-making along the lines favored by regulatory scholars. Ministerial departments consider policy, promote legislative change, and may make regulations; the regulators apply these rules in individual cases, may develop guidelines to explain them and the approach they take to them, and may—with varying degrees of formality—provide advisory input to departmental policy functions. The exception is the environmental functions of the United Kingdom's BEIS, where the policy/administration divide is still not accepted.

But while police regulation generally fits into recommended patterns, economic regulation does not: here the dividing line is between, on the one hand, policy coupled with important individual decision-making, and on the other, day-to-day administration and regulatory activity. Here the United Kingdom will again be the exception, although while the Department retains rule-making responsibility on matters like terms and conditions of licenses, OGA has significant policy responsibilities as well as individual decision-making powers, being tasked with the development of strategies—binding on the industry—to maximize ultimate recovery across the United Kingdom Continental Shelf.³⁴³ In other words, policy and regulation are now recombined—but in the hands of an independent regulator, rather than a ministerial department.

So why will the classic policy/administration split not work for economic regulation in this area? It is not enough to say that the decisions are economically weighty, with a lot of money riding on them. Decisions on utility tariffs certainly fit that description, but Australia has found it possible, at both the State and Commonwealth level, to place these in the hands of independent regulators operating within well-defined frameworks of rules.³⁴⁴ Indeed, it is precisely the impact of regulatory decisions on the economic well-being of utilities operators that led bodies like the

343. Petroleum Act 1998, c. 17 §§ 9A, 9F (UK).

344. Mitzi Gilligan et al., *Australia*, in *THE ENERGY REGULATION AND MARKETS REVIEW* 1, 2, 9 (David L. Schwarz ed., 2012).

OECD and the World Bank to recommend their insulation from politics via the independent regulator device.³⁴⁵ Instead, what seems to count is the echo of controversies about the concession model of regulation, as applied in the mining, rather than the public service, context.

The mining concession contemplates the definitive transfer to the concessionaire in return for a payment, such as a royalty, of resources which are public property until recovered. The history of the oil industry indicates that such disposals of national resources are a matter of the highest political sensitivity, and have indeed led many countries to abandon the concession concept altogether in favor of some form of service contract. But even this step may not protect against all difficulties, especially (though not exclusively) where public ownership of natural resources is asserted and guaranteed by the constitution, as in Iraq, Iran, and Indonesia.³⁴⁶ Such a constitutional provision has been relied upon by the Indonesian Constitutional Court as a ground for invalidating legislation that transferred powers to allocate petroleum titles—in the form of production sharing contracts—and to supervise operations under them from the Ministry of Energy and Natural Resources to a separate administrative and regulatory body, BPMIGAS. The Court ruled that this body and its functions must be reincorporated into the Ministry.³⁴⁷ While no such constitutional constraint is present in any of the states here under examination, sensitivities about putting private enterprises in a position to appropriate public resources to their benefit seem to be the best explanation for reserving these individual decisions for politically-responsible decision-makers. The United Kingdom's recent departure from this tradition may be viewed as an implicit acknowledgment that there remain no rich pickings to be distributed through the

345. *See supra* note 314.

346. Article 111, *Dustūr Jumhūrīyat al-'Irāq* [The Constitution of the Republic of Iraq] of 2005; *QANUNI ASSASSI JUMHURII ISLAMAI IRAN* [THE CONSTITUTION OF THE ISLAMIC REPUBLIC OF IRAN] art. 45 [1989]; *Undang Undang Dasar Negara Republik Indonesia* [The Constitution of the Republic of Indonesia] art. 33(3).

347. Constitutional Court Decision, No. 36/PUU-X/2012 (Indon.). For a critical discussion about this ruling, see Simon Butt & Fritz Edward Siregar, *State Control over Natural Resources in Indonesia: Implications of the Oil and Natural Gas Law Case of 2012*, 31 *J. ENERGY & NAT. RES. L.* 107 (2013).

allocation of North Sea exploration and production rights, and that the industry has entered a low-risk, low-reward phase better suited to the sort of independent regulatory management that characterizes public utilities.

C. The Goal of Clarity—For Whom?

One of the values consistently asserted as a mark of good regulation is clarity. Clarity of roles is appealed to as a basis for creating specialist regulators with statutory mandates, at the expense of multi-purpose Ministerial departments; clarity for users was one of the eight regulatory principles pronounced by the OECD in its 1995 *Recommendation*.³⁴⁸ One thing that this history of offshore petroleum regulation may demonstrate is the serious tension between these demands for clarity. The more precisely roles are focused, the more regulators there are likely to be and the greater the risk that those operating in the offshore industry will be subjected to superfluous, uncoordinated, or even inconsistent, regulatory requirements. We have shown in an earlier writing on the Australian reforms of 2012 how specialization has created costly needs for inter-agency communication and collaboration that were absent under the earlier regime of wide-ranging Designated Authority powers.³⁴⁹ This is believed to be a price worth paying for the greater vigor and expertise with which particular regulatory goals like environmental protection will be pursued. This distribution of costs and benefits is accurately translated by the fact that the bodies whose core concerns are environmental protection or the health and safety of workers consistently advance the case for regulatory specialization, while the industry has no less consistently favored a greater degree of comprehensiveness in the attributions of industry regulators where this choice has been offered.³⁵⁰

348. ORG. FOR ECON. CO-OPERATION & DEV., RECOMMENDATION OF THE COUNCIL OF THE OECD ON IMPROVING THE QUALITY OF GOVERNMENT REGULATION 11 (1995); ORG. FOR ECON. CO-OPERATION & DEV., *supra* note 51.

349. Chandler & Daintith, *Architecture*, *supra* note 6, at 335, 337.

350. Examples include the contrasting attitudes of the industry and the trade unions to the Burgoyne Committee recommendation to keep safety competence within the Department of Energy in 1980, *supra* notes 94-97 and accompanying text; the resistance

What one regards as the proper point of balance between specialization and its complexities and user-friendliness must depend to a considerable extent on the relative weight allotted to the economic advantages of oil and gas production as against the protection of the environment and of occupational health and safety. It is clear that over the half-century of the offshore oil industry's life in the United Kingdom, Norway, and Australia these latter values have come to be accorded much greater weight in the minds of the public and of politicians than was the case at its beginning; this shift, fueled by reactions to major disasters, has been far more influential in reshaping the regulatory environment, in terms of institutions as well as substance, than any general learning about what is good regulation. Nonetheless, it is clear from the statements of the European Commission and the Australian Productivity Commission that such learning has contributed to this reshaping process. At the same time, comparison of offshore petroleum regulation over a lengthy period and in several countries suggests that if that contribution is to be a positive one, it needs to be employed in full consciousness of the particular circumstances of natural resource management: the underlying constraints imposed by the state's governmental traditions, the risks faced by the concessionaire, and the need to recognize and resolve the tensions and contradictions that may appear when the precepts of "good regulation" are translated into practice. The post-Macondo architecture of offshore petroleum regulation will face ongoing challenges in managing these tensions. These will be magnified if the oil price remains low for an extended period or if more exploration is conducted in difficult and sensitive environments such as deep water or the Arctic.

of Australian environmental organizations to the assumption by NOPSEMA of comprehensive environmental control powers, in place of the dual system previously operating in which the Commonwealth Environment Department could exercise a separate control under different legislation, Chandler & Daintith, *Architecture*, *supra* note 6, at 333-35; and the industry preference for a single environmental and health and safety regulator as a way of implementing the EU Safety Directive in the United Kingdom, and trade union resistance in the same context to any dilution of HSE's health and safety concerns, *supra* note 321.