AUSTRALIAN OFFSHORE PETROLEUM REGULATION AFTER THE VARANUS ISLAND EXPLOSION AND THE MONTARA BLOWOUT– DROWNING IN A SEA OF FEDERALISM?

Tina Hunter*

This paper considers the state of regulation of offshore petroleum activities since the Varanus Island Gas Explosion in 2008, and the Montara blowout and oil spill in 2009. The regulatory arrangements that arose out of the 1980 Offshore Constitutional Settlement split the regulation of Australia's maritime resources into two distinct zones – those waters seaward from the baseline to three nautical miles, which is regulated by the states and territories; and those waters seaward from three nautical miles to Australia's maritime limit (at present 200 nautical miles), regulated by the Commonwealth. Within these constitutional arrangements, the Commonwealth and States/Northern Territory (NT) have regulated petroleum activities under prevailing petroleum legislation. However, there have been two catastrophic facility integrity failures – a gas explosion on Varanus Island and a blowout and resultant oil spill on the Montara Platform. These incidents, combined with a review of the operations of the National Offshore Petroleum Safety Authority and an analysis of regulatory burden on the offshore petroleum sector have indicated that Australia requires a regulatory framework that establishes a single agency as regulator for all petroleum activities. The Commonwealth proposed two models of regulation for such a regulator agency. Both of these models have been rejected by the Western Australian Government, which has indicated that their view is that given the local conditions and unique nature of petroleum titles in Western Australia, the Western Australian Government should be involved in the regulation of titles in Western Australia. This paper provides an alternative model to those proposed by the Commonwealth. It suggests the establishment of single regulators based on geographical division rather that governmental division. This means establishing a western basin resource regulator, responsible for regulating all of the offshore petroleum resources in the western basins of Australia, and a national regulator, who could regulate all of the eastern and central offshore petroleum producing basins.

1 Introduction

The regulation of offshore petroleum activities in Australia has been a constitutional conundrum since the first show of petroleum in the Bass Strait in the 1960s. From the first negotiations resulting in the *1967 Petroleum Agreement*, there has been tension between the States/Northern Territory (NT) and Commonwealth regarding the regulation of offshore oil and gas. Following the enactments of the *Sea and Submerged Lands Act 1973* (Cth) and the consequential challenge by NSW in *NSW v Commonwealth (Sea and Submerged Lands Case)*,[1] sovereign rights over Australia's territorial seas and continental shelf were vested in the Commonwealth. This heightened friction between the Commonwealth and States/NT regarding regulatory control of Australia's maritime zones. However, a negotiated settlement, the *Offshore Constitutional Settlement* (OCS), ushered in an era of 'co-operative governance in a sea of federalism',[2] where divisive jurisdictional posturing between the States and the Commonwealth reduced.[3] Indeed, the creation of the National Offshore Petroleum Safety Authority (NOPSA) in 2005 saw unprecedented cooperation in the sea of federalism as the States and the Commonwealth moved toward the common goal of a national offshore petroleum regulator.

Six years after the creation of NOPSA, cooperative federalism appears to be in crisis. After several reports[4] and two catastrophic facility integrity failures (CFIFs), there is a call for the regulation of all petroleum activities in all

* BA (Hons) (Syd); G Dip A (LIS) (CSU); M App Sc (LIM) (Dist) (CSU); JD (Hons) (Bond); PhD (Bergen).
Assistant Professor, Bond University, Gold Coast, Australia. Gjesteforsker, Universitetet i Bergen, Norway. [Ed.note: this paper was subject to double blind referee process at the author's request.]

[1] *NSW v Commonwealth* (1975) 135 CLR 337.

[2] A phrase described by Nathan Evans in Nathan Evans, 'Offshore Petroleum in Australia – Cooperative Governance in a Sea of Federalism' (2003) 26 *Dalhousie Law Journal* 175.

[3] Ibid 176.

[4] These reports include Magne Ognedal, Derek Griffiths and Bruce Lake, 'Review of the National Offshore Petroleum Safety Authority Operational Activities: Report of the Independent Review Team' (Report, Department of Resources, Energy and Tourism, 2008); Productivity Commission, 'Review of Regulatory Burden on the Upstream (Oil and Gas) Sector Research Report', (Productivity Commission, April 2009);

offshore jurisdictions to be regulated by a single agency, incorporating resource management, environment and safety regulation.

This paper examines the regulation of offshore petroleum activities in a post facility-failure landscape. Firstly, it will outline the current arrangements for the regulation of Australian offshore petroleum activities. It will then analyse the current issues that befall the current regulatory arrangements, especially that of regulatory burden and facility safety integrity. This will necessarily include the Varanus Island gas pipe explosion and the Montara Well blowout and oil spill, and the recommendations of the Montara Commission of Inquiry (MCI). Finally, it will focus on an analysis of the offshore petroleum regulatory landscape post facility failure. Not only will this paper examine the legislative changes to date in response to these critical incidents, but will also look at future regulatory reform. In particular, this paper will examine whether the establishment of a National Offshore Petroleum Regulator (NOPR) controlled by the Commonwealth will calm the seas of federalism, or see offshore petroleum regulation drowning in a sea of federalism.

2 Regulatory arrangements concerning Australian offshore petroleum activities at the time of the Montara blowout

The legal framework regulating offshore petroleum activities in Australia is a unique constitutional arrangement arising out of the OCS concluded in 1979,[5] in order to address substantial constitutional issues pertaining to Australia's Maritime Zones.[6] Under this agreement, the regulation of Australia's offshore maritime zone, and therefore offshore petroleum activities, is divided between the States/NT and Commonwealth Governments.[7] It was enacted at State and Commonwealth level through mirror legislation (Commonwealth and State *Petroleum (Submerged Lands) Acts*).[8] In addition, a plethora of other necessary legislation was enacted to enable the implementation of the OCS, thus conferring on the states a virtually unfettered ability to make laws up to three nautical miles.[9]

Under the agreed terms of the OCS, the States/NT are responsible for regulating the waters wholly within the State, such as bays and estuaries (State Waters). The States/NT are also responsible for waters the first three nautical miles seaward from the mean low water mark (Coastal Waters). The Commonwealth is responsible for the waters seaward of three nautical miles to the outer edge of Australia's maritime zone (Commonwealth Waters). This outer edge is either the Exclusive Economic Zone, 200 nautical miles from the mean low water mark or the edge of the Continental Shelf, as declared under Article 77 of the *United Nations Convention on the Law of the Sea*).

This agreement remains in force today, with the States/NT and Commonwealth jurisdictions outlined in section 5(2) of the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* (Cth) ('OPGGSA').

The States and the NT share, in the manner provided by the OPGGSA, in the administration of the Commonwealth offshore petroleum legislation.[10] In addition, all governments are required, as far as practicable, to maintain common

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and K Bills and D Agostini, 'Offshore Petroleum Safety Regulation: Better Practice and the Effectiveness of the National Offshore Petroleum Safety Authority' (Report, Department of Resources, Energy and Tourism, June 2009).

[5] Attorney General's Department, *Offshore Constitutional Settlement: A Milestone in Co-operative Federalism* (Australian Government Publishing Service, 1980).

[6] For an excellent historical consideration of constitutional issues that required an agreement between the States and Commonwealth under the OCS, see Stuart Kaye, 'The Offshore Jurisdiction of the Australian States' (2009) 1(2) *Australian Journal of Maritime and Ocean Affairs* 37 and Michael Crommelin, *Governance of Oil and Gas Resources in the Australian Federation* (Working Paper, University of Melbourne Law School Research Series No 8, 2009).

[7] Attorney General's Department, above n 5, 6-8.

[8] *Petroleum (Submerged Lands) Act 1967* (Cth); *Petroleum (Submerged Lands) Registration Fees Act 1990* (WA); *Petroleum (Submerged Lands) Act 1982* (Vic); *Petroleum (Submerged Lands) Act 1982* (Qld); *Petroleum (Submerged Lands) Act 1982* (SA); *Petroleum (Submerged Lands) Act 1982* (Tas); *Petroleum (Submerged Lands) Act 1982* (NSW); *Petroleum (Submerged Lands) Taxation Act 1967* (NSW), as outlined in Michael Crommelin, 'The Legal Character of Petroleum Production Licences in Australia' in Terrence Daintith, *The Legal Character of Petroleum Licences: A Comparative Study* (University of Dundee, Centre for Petroleum and Mineral Studies, International Bar Association, 1981) 62.

[9] Required Acts include *Coastal Waters (State Powers) Act 1980; Coastal Waters (Northern Territory Powers) Act 1980; Coastal Waters (State Title) Act 1980*; *Coastal Waters (Northern Territory Title) Act; and Offshore Minerals Act 1984* (Cth). These are outlined in s 5(3) of the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* (Cth) ('*OPGGSA*'). Refer to R Cullen, *Federalism in Action: The Australian and Canadian Offshore Disputes* (Federation Press, 1990), especially 108-110.

[10] *OPGGSA* ss 56 and 66.

principles, rules and practices in regulating and controlling the exploration for, and exploitation of offshore petroleum beyond the baseline of Australia's territorial seas.[11]

Initial arrangements between the Commonwealth and States for the exploration and production of offshore petroleum were created under the *1967 Petroleum Agreement* (Petroleum Agreement).[12] This agreement was forged between the Commonwealth, States and affected territories and is officially known as the *Agreement Relating to the Exploration for and the Exploitation of, the Petroleum Resources, and Certain Other Resources, of the Continental Shelf of Australia and of Certain Territories of the Commonwealth and of Certain Other Submerged Land signed October 16, 1967*. The Petroleum Agreement did not intend to create legal relationships enforceable in a court of law.[13] Rather, it noted that petroleum activities would be encouraged by uniform legislative measures on the continental shelf beyond territorial limits, and that the State and national governments would cooperate to ensure effectiveness of authorities over petroleum resources.[14] The legal status of the Petroleum Agreement was made clear in clause 26 of the Agreement:

> the Governments acknowledge that this Agreement is not intended to create legal relationships justiciable in a Court of Law but declare that the Agreement shall be construed and given effect to by the parties in all respects according to the true meaning and spirit thereof. [15]

To achieve constitutional legitimacy, each State and Territory government legislated with respect to offshore petroleum operations in identical terms to the Commonwealth petroleum legislation (known as 'mirror' legislation).[16] In addition, all governments agreed not to make, amend or repeal regulations under the legislation except under a prior agreement to do so.[17]

The *Petroleum (Submerged Lands) Act 1967* (Cth) (*PSLA*) was conceived as an ingenious legal mechanism to give effect to the Petroleum Agreement,[18] securing offshore petroleum development without having to resolve the jurisdictional issues between the Commonwealth and the States.[19] This legislation arose because of the constitutional arrangements that existed between the Commonwealth and States at the time the *PSLA* was enacted. This *PSLA* addressed the constitutional demarcation of jurisdictions by enacting a comprehensive legislative 'code,' creating joint Commonwealth-State administration of petroleum of titles.[20] Much of the details ordinarily contained in regulations are contained in the PSLA, since if administrative delegation occurred, there was a risk of variation or conflict between the Commonwealth and States.[21] To reduce the capacity for the States to go their own way, the provisions of the petroleum legislation were necessarily detailed,[22] granting each State or Territory the legislative capacity to grant dual titles to oil companies under State authority and delegated authority from the Commonwealth.[23] This joint management required the establishment of two Authorities that regulate petroleum activities: The Joint Authority (JA), which comprises the relevant Commonwealth Minister and the responsible State Minister; and the Designated Authority (DA), comprising the responsible State or Territory Minister.[24]

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[11] *OPGGSA* s 5(2)(e).

[12] Constance D Hunt, *The Offshore Petroleum Regimes of Canada and Australia* (Faculty of Law, University of Calgary, 1989) 63.

[13] Ibid 64.

[14] Ibid 63.

[15] See Crommelin, above n 8, 61.

[16] Ibid 62; *Bonser v La Macchia* (1969) 122 CLR 177.

[17] Crommelin, above n 8, 62.

[18] Hunt, above n 12, 64.

[19] Terrence Daintith, *Discretion in the Administration of Offshore Oil and Gas* (AMPLA 2005) 13.

[20] Terence Daintith, 'A Critical Evaluation of the Petroleum (Submerged Lands) Act as a Regulatory Regime' (2000) *Australian Mining and Petroleum Law Association Yearbook 2000* 91, 93.

[21] Daintith, above n 19, 13.

[22] Ibid.

[23] Ibid.

[24] *OPGGSA* ss 56 and 66. Under ss 56(8) and (9) of *OPGGSA*, The Commonwealth Minister alone is the JA for Commonwealth Waters, the external territories, and the offshore areas of each of those territories. Similarly, under ss 70(8) and (9) of OPGGSA, the responsible Commonwealth Minister is also the DA for each of the territories and the offshore areas of those territories. Under s 68(1), the Commonwealth as DA of the external areas is able to delegate the regulation to an external territory to the NT. At the time of the Montara blowout, the NT had been delegated as DA for the Ashmore and Cartier Reef offshore areas.

As a result of the changes to petroleum licencing and activities, the detailed *PSLA* required over 1 000 amendments from 1967 to 2005, resulting in over thirty separate compilations of the Act.[25] A rewrite of the *PSLA*, the *Offshore Petroleum Act 2006* (Cth) (*OPA*), was enacted in 2006. Industry and governments alike had identified the *PSLA* as cumbersome, unwieldy and complex as the result of numerous amendments and updates,[26] and the *OPA* was touted as a plain English rewrite of the *PSLA*.[27] After five years of consultation with industry, discussions and workshops, the Commonwealth Parliament passed the *OPA*. It contained only changes to the structure and style of the legislation, implementing only a few minor policy changes from the framework set out in the *PSLA*.[28]

The *OPA* entered into force on 1 July 2008, two years after the Act was passed by the Parliament. Further amendments to the *OPA*, particularly in regards to the offshore storage of greenhouse gas were required. In November 2008 the *OPA* was reincarnated as the *OPGGSA*.[29]

As agreed in the OCS, the regulation of offshore petroleum activities is undertaken under a joint arrangement, with offshore areas (which replaced the term 'adjacent areas' when the *OPGGSA* entered into force) regulated under the JA/DA arrangement. This cooperative regulatory regime legislatively divides the offshore area into Commonwealth legislated areas (in Commonwealth Waters, subject to the OPGGSA) and State/NT legislated areas (the Coastal and State Waters, subject to the relevant State/NT legislation). The legislation covering these Waters is outlined in Figure 1 below.

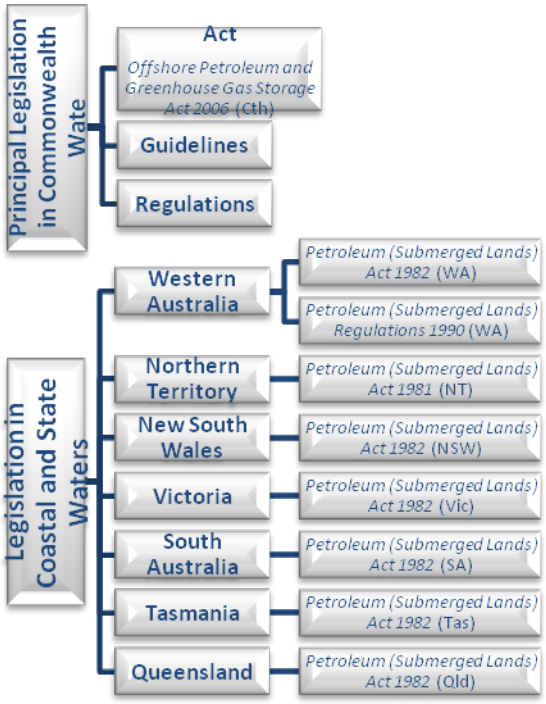

Figure 1: Commonwealth and State Legislation regulating offshore petroleum activities in Commonwealth, Coastal and State Waters (Source: Compiled by Author from Department of Resources, Energy and Tourism, *Offshore Petroleum Legislation, Regulations and Guidelines* (2011) http://www.ret.gov.au/resources/upstream_petroleum/offshore_petroleum_regulation_and_legislation/offshore_petroleum_legislation_regulation_and_guidelines/Pages/OffshorePetroleumLegislationRegulationandGuidelines.aspx)

[25] The full legislative history of the *Petroleum (Submerged Lands) Act 1967* (Cth) can be found at <http://www.comlaw.gov.au>.

[26] Ibid.

[27] Explanatory Memorandum, Offshore Petroleum Bill 2005 (Cth) 2.

[28] Ibid.

[29] The *Offshore Petroleum Act 2006* (Cth) ('*OPA*') was amended to incorporate Greenhouse Gas Storage legislative provisions and renamed the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* (Cth) on 1 November 2008.

At the time of the Varanus Island explosion and the Montara blowout, multiple agencies regulated offshore petroleum activities in various jurisdictions:

- The JA regulates *day-to-day petroleum operations, pipelines and subsea facilities in Commonwealth Waters*. The JA delegates the regulation to a DA, comprising the State Minister and that Minister's department;

- *Day-to-day petroleum operations, pipelines and subsea facilities in Coastal and State Waters* are regulated by the relevant State department;

- *Environmental aspects* of offshore petroleum activities in all waters are regulated by the relevant State or the Commonwealth department, depending on the jurisdiction; and

- *Safety of all offshore facilities* in all Waters except WA State and Coastal Waters are regulated by NOPSA.

This regulatory framework continues to regulate offshore petroleum activities.

Another regulatory layer consists of the Acts and Regulations addressing the regulation of the environment, natural and cultural heritage, and native title rights. The multiple agencies and jurisdictions in this regulatory framework rely on the States/NT performing their various responsibilities, and discharging their obligations in a competent manner. However, with so many regulators and multiple jurisdictions, there are a number of inconsistencies in terms of approaches, procedures, and resourcing available to each of the regulators when discharging their obligations with respect to the regulation of offshore petroleum activities.[30]

The Productivity Commission, in its 2009 Research Report into regulatory burden in the Australian upstream offshore petroleum sector, criticised the regulatory arrangements of the offshore petroleum sector, describing the regime as complex.[31] It noted that 22 petroleum and pipeline laws applied at both the Commonwealth and State/NT levels, with more than 150 statutes governing upstream petroleum activities in such areas as occupational health and safety, native title, and environmental protection.[32] Most importantly, the report identified that well over 50 State, Commonwealth and Territory government bodies regulate upstream petroleum activities over areas incorporating the regulation of health and safety, facility integrity, resource management, well operations and environmental issues.[33]

3 Criticisms of current regulatory arrangements, and possible solutions

3.1 Safety regulation and the failure of the regulatory framework

Prior to 2005, duplication occurred in the regulation and administration of safety in the Australian offshore petroleum sector. Initial arrangements between the Commonwealth and States/NT for the exploration and production of offshore petroleum were established under the *PSLA*,[34] where the regulation of health and safety on offshore petroleum facilities was a matter for States and Territories. The States/NT carried out the day-to-day regulation of offshore petroleum health and safety activities under a mix of Commonwealth law (in Commonwealth Waters) and State Law (in Coastal and State Waters). Until the 1990s, this regulatory approach was prescriptive, where the relevant State/Territory and Commonwealth statutes specified exactly the conditions for compliance with safety requirements on offshore facilities, and the means by which they should be accomplished. This legislation prescribed specific laws that had to be complied with, and the regulator determined what was safe or not for the

[30] Department of Resources, Energy and Tourism, Submission No 3005.0001.0001, *Montara Commission of Inquiry*, 2010, [2.34].

[31] Productivity Commission, 'Review of Regulatory Burden on the Upstream (Oil and Gas) Sector' (Research Report, April 2009) XXIII.

[32] Ibid VXIII.

[33] Ibid XXIII.

[34] Hunt, above n 12, 63.

industry.[35] As a consequence of rapid changes in technology and activities, this system of safety regulation was always catching up with changes that occurred in the field.

Like many other petroleum producing countries, the statutes governing offshore petroleum health and safety underwent significant re-fashioning in the 1970s, as a consequence of the Robens Report in the UK.[36] This re-fashioning resulted in a significant shift from the old-style regulation that focused on specifications and standards to an era of sanctions and enhanced inspectoral powers.[37]

Immediately after the *Piper Alpha* offshore petroleum accident in the North Sea in July 1988, it was apparent that there were lessons to be learnt from the experience of the UK offshore. Indeed, in October 1988 the Commonwealth Minister for Resources formed a Consultative Committee on Safety in the Offshore Petroleum Industry. It was the role of the Committee to advise the Minister on safety issues related to Australia.[38] In 1991, the Committee recommended that the key outcomes of the UK Committee of Inquiry into the *Piper Alpha* disaster be implemented in Australia.[39] This ushered in an era of sweeping reforms to the regulation of Australian offshore petroleum safety. At the heart of these reforms was the incorporation of the safety case regime (SCR) in the regulation of offshore petroleum safety. In addition, these reforms included replacing prescriptive safety rules in the *PSLA* with performance-based regulations.[40] In 1992, a new Schedule 7 (Occupational Health and Safety) was added to the *PSLA*, and the *Petroleum (Submerged Lands) Occupational Health and Safety Regulations 1993* (Cth) were implemented. These regulations provided operators and regulators alike with regulations relating to advice, investigation and inquiries into 'dangerous occurrences'.[41]

These major reforms to Australia's approach to offshore petroleum health and safety were somewhat difficult to implement. Whilst the reforms in the UK occurred in a unitary system of government, the reforms in Australia during the 1990s occurred within the context of the OCS between the Commonwealth and States. This meant that the SCR was implemented in a federal system, requiring a coordinated and harmonised approach under the shared Commonwealth-State/Territory system regulating offshore petroleum activities. Consequently, there were multiple agencies regulating safety in offshore petroleum activities.

Recognising these regulatory challenges, the Commonwealth Minister for Resources commissioned a review of the progress of implementing the safety case into the Australian offshore petroleum sector. Conducted by the former Chief Executive of the UK Health and Safety Executive, Dr Tony Barrell, the resulting report[42] recommended reform in the regulation in order to achieve greater regulatory consistency within and between State/Territory and Commonwealth government safety regimes. The Commonwealth adopted the recommendations of the Barrell Report, commissioning a review of offshore petroleum safety arrangements in 1999. An Independent Review Team of international offshore safety experts was assembled, and reported to the Commonwealth in March 2000.[43]

The primary conclusion of the Independent Review Team (IRT) was:

> that the Australian legal and administrative framework, and the day-to-day application of this framework, for regulation of health, safety and environment in the offshore petroleum industry is

[35] Patrick Brazil and Peter Wilkinson, 'The Establishment of a National Offshore Petroleum Safety Authority' (2005) 24 *Australian Resources and Energy Law Journal* 87, 88.

[36] Lord Robens, *Safety and Health at Work: Report of the Committee 1970-1972* (HMSO, 1972).

[37] Richard Johnstone, Michael Quinland, and Maria McNamara, 'Enforcing Upstream: Australian Health and Safety Inspectors and Upstream Duty Holders' (Working Paper 77, National Research Centre for OHS Regulation, Australian National University, 2010).

[38] Brazil and Wilkinson, above n 35, 89.

[39] Department of Resources, Industry and Tourism, *Offshore Petroleum Safety* (2010) <http://www.ret.gov.au/resources/upstream_petroleum/offshore_petroleum_safety/pages/offshorepetroleumsafety.aspx>.

[40] Ibid.

[41] Brazil and Wilkinson, above n 35, 89.

[42] Tony Barrell, *Second Review of the Management of Safety in the Offshore Operations of BHP Petroleum* (Report, Department of Primary Industries and Energy, 1997).

[43] Odd Bjerre Finnestad, Magne Ognedal and Ed Spence, 'Report of the Independent Review Team' (Report, Department of Industry, Science and Resources: Offshore Safety and Security, Petroleum and Electricity Division, 29 March 2001).

> complicated and insufficient to ensure appropriate, effective and cost efficient regulation of the offshore petroleum industry.[44]

Furthermore, the IRT concluded that 'much would require improvement for the regime to deliver world-class safety practice'.[45] They found that the greatest impediment to the delivery of world-class safety practice was the number of Acts, Regulations and directions regulating offshore petroleum activities, with numerous jurisdictions resulting from the OCS requiring different sets of legal documents for each jurisdiction, with overlaps and inconsistencies in legislation.[46] It also concluded that the State/NT safety regulators lacked regulatory skills, capacity and consistency and did not have a clear view of their role.[47] Similarly, it found that the Commonwealth did not have the sufficient resources, technical expertise, credibility and authority to drive the changes required to attain world-class safety practice.[48]

The IRT made three recommendations to improve the safety regime. It recommended that the current Commonwealth SCRs framework of legal documents be revised.[49] Furthermore, it recommended that the current SCR's regulatory system be revised.[50] Most importantly, it recommended the development of a single petroleum regulatory authority to oversee the implementation of safety in Commonwealth Waters.[51]

The Commonwealth agreed with the recommendations of the IRT, realising that a single regulator would bring efficiencies through economies of scale, uniform procedures and greater consistency in the interpretation and application of regulations and guidelines, and reduce regulatory burden on industry.[52] Seeking to establish the national regulator, the Ministerial Council on Mineral and Petroleum Resources (MCMPR) endorsed the creation of a single safety regulator, noting that such a joint offshore authority would bring significant benefits, ensure better safety outcomes for individuals working on offshore platforms and reduce risks to the environment.[53]

Whilst the Commonwealth favoured the establishment of a joint national regulator, the States and NT strongly argued for the retention of the existing disaggregated arrangements. However, the Australian Petroleum Production and Exploration Association (APPEA), the peak industry body, and workforce representatives both indicated that the case for the continuation of existing arrangements was neither compelling nor convincing.[54] Furthermore, workplace representatives were convinced that only the development of a single national safety authority would achieve effective uniform processes across jurisdictions.[55] The Commonwealth agreed that the creation of a single national regulator in Commonwealth Waters would be most beneficial, although it also recognised that such arrangements may result in a number of undesirable effects for the States/NT, and for industry operating in both Commonwealth and State/NT jurisdictions.[56] Accepting these undesirable effects, the Commonwealth proposed the creation of an independent regulator regulating Commonwealth, State and Coastal Waters,[57] requiring the States/NT to confer their powers over Coastal and State Waters on the Commonwealth. This arrangement would effectively result in States reporting to State Ministers regarding activities in Coastal and State Waters, but allow the Commonwealth to directly control the administration of offshore waters, with reporting and accountability to relevant ministers.

The Commonwealth's decision to establish the National Offshore Petroleum Safety Authority led to the introduction and passing of two Commonwealth Acts the *Petroleum (Submerged Lands) Amendment Act 2003* (Cth) to make

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[44] Ibid 4.
[45] Ibid.
[46] Ibid.
[47] Ibid.
[48] Ibid.
[49] Ibid.
[50] Ibid.
[51] Ibid.
[52] Ministerial Council on Minerals and Petroleum Resources, *MCMPR Communiqué: Summary of Ministerial Council Meeting 13 September 2002, Perth*, National Offshore Petroleum Safety Authority (NOPSA) <http://www.nopsa.gov.au/downloads/Final_Communique_Sept02.pdf>.
[53] Ibid 1.
[54] Department of Industry, Science and Resources, 'Future Arrangements for the Regulation of Offshore Petroleum Safety' (Review, 2001) 5-6.
[55] Ibid 6.
[56] Ibid.
[57] Ibid.

substantial legislative amendments to the *PSLA* to establish NOPSA; and the Offshore Petroleum (Safety Levies) Bill 2003 (Cth) to provide for full cost recovery to industry. As part of the legislative reforms to the *PSLA*, the role of NOPSA was set out, including its structure and governance. Secondly, amendments were made to the occupational health and safety provisions of the *PSLA* inserted in 1993 when the SCR was implemented. Furthermore, vast legislative reform to all State/NT mirror legislation was required in order to implement the new national regulator in State and Coastal Waters where those States conferred upon the Commonwealth the right to regulate offshore petroleum safety in those waters. The raft of legislative reform required is illustrated in Figure 2 below.

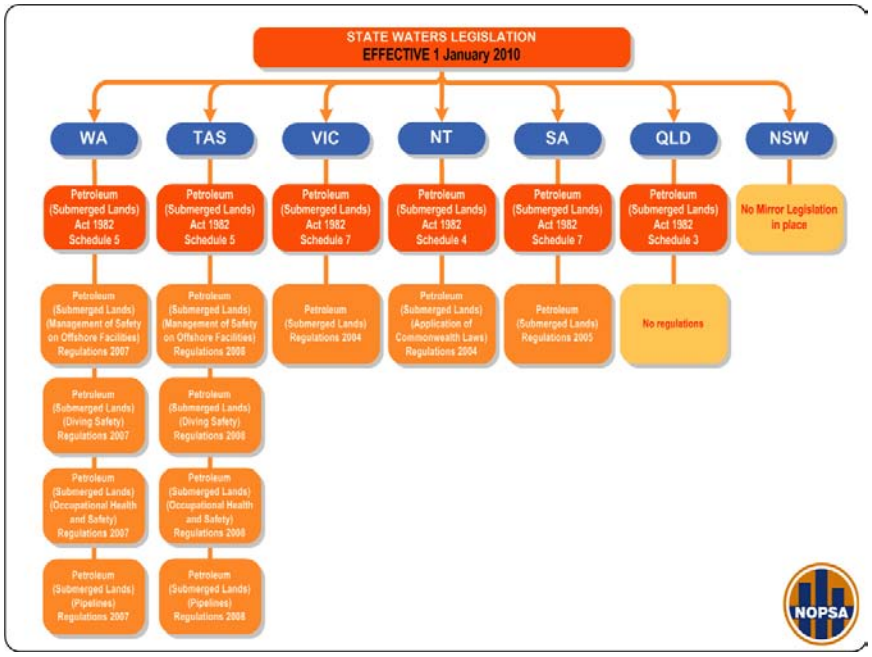

Figure 2: Legislation for Health and Safety under NOPSA in State, Coastal and Commonwealth Waters as at 1 January 2010. (Source: NOPSA, *Regulations and Legislation* (2010) <http://www.nopsa.gov.au/regs.asp>)

The necessary legislative reforms were completed and NOPSA was implemented on 1 January 2005. Most, but not all States/NT jurisdictions conferred the regulation of safety in State and Coastal Waters upon NOPSA.[58] Furthermore, NOPSA was only charged with safety on offshore petroleum facilities, whilst well control and environmental regulation remained with the States under the JA/DA arrangement.[59]

The creation of NOPSA was designed to provide numerous benefits to the regulation of health and safety on offshore petroleum facilities. Most importantly, it sought to create a single body that regulated safety for offshore petroleum activities, rather than the diaspora of regulation that existed prior to the establishment of NOPSA. However, the establishment of NOPSA created vertical and horizontal regulatory disjuncture – areas where there was either regulatory overlap or regulatory gaps. Vertically, NOPSA is responsible for the regulation of safety on facilities, whilst the regulation of the well and well operations (subsea regulation) is the responsibility of the DA. In addition, where the States have not conferred regulatory powers for their State and Coastal Waters to NOPSA, these waters are regulated by the State from the baseline seaward to three nautical miles, where NOPSAs jurisdiction then commences. Because Western Australia has not conferred powers to NOPSA for Coastal and State Waters and

[58] Ibid.
[59] Ibid.

Islands, the regulation of occupational health and safety is not uniform.[60] Added to this regulatory disjuncture is environmental regulation under the *Environmental Protection and Biodiversity Conservation Act 1999* (Cth) (*EPBCA*). This legislation is the overarching environmental regulatory framework for State, Coastal and Commonwealth Waters, and operates in conjunction with state and territory environmental legislation.

Whilst the regulation of the integrity of offshore petroleum facilities in Australia has become increasingly harmonious since the establishment of NOPSA in 2005, there are have been two catastrophic incidents at offshore petroleum (oil and gas) facilities in Australia since 2008. These incidents, known as Catastrophic Facility Integrity Failures (CFIFs), are low-probability but high-consequence events that include well blowouts, hydrocarbon leaks (ignited or non-ignited), fires and/or explosions, collisions and leaking subsea equipment.

The first major Australian offshore petroleum CFIF was an explosion at the Varanus Island offshore gas facility off the north-western Western Australian coastline. It resulted from the rupture of a gas pipeline. The second incident was a well blowout on the Montara Wellhead Platform in the Timor Sea off north-west Western Australia (WA). Together these CFIFs contributed to Australia releasing four times more hydrocarbons (per million barrels of oil produced) than Norway, and eight times more hydrocarbons than the UK between 2007 and 2009.[61] This increase in hydrocarbons release may indicate that aspects of the regulatory regime in Australia are contributing to CFIFs. This raises the question of why are these CFIFs occurring when there is a national offshore petroleum operator?

Investigations into the Varanus gas pipeline rupture indicate that the existing regulatory framework contributed to the CFIF.[62] It concluded that the pipe rupture and explosion could have been avoided if facility integrity had been managed by a single agency rather than jointly by NOPSA and the Western Australian Department of Mines and Petroleum (WA DMP), since a single regulator would have been responsible for the facility and the pipelines carrying the gas from the production platform to markets onshore.[63] Similarly, investigations into the Montara blowout and oil spill by the Montara Commission of Inquiry (MCI) appear to support the notion that the regulatory framework contributed to the CFIF. This supports the notion that aspects of the regulatory regime have contributed to CFIFs in Australia's offshore petroleum sector. The immediate causes of the Montara CFIF were poor cementing of the cement shoe, and a failure of the float valves.[64] However, the root cause was a systemic failure of the management systems and non-compliance with the operating procedures that had been set out in the facility safety case.[65] The standard processes and procedures appeared to have been put in place, but for some reason not adhered to.[66] The SCR operates on the notion that it is the operator that identifies the risks, and designs systems that maintain the risks at a level 'as low as reasonably practicable' (the concept of ALARP). As such, the SCR requires a competent regulator, whose role is to ensure that the system that the operator designs to maintain the risk at as low a level as practicable is adhered to. Where the operator fails to adhere to the systems designed, it is the role of the regulator to ensure that compliance to the safety case occurs. In this case, the regulator, the Northern Territory DA (NTDA), was found by the MCI to have failed in its regulatory role of ensuring compliance with the SCR and maintaining good oilfield practice.[67]

Australia is not the only jurisdiction that has had CFIFs. The BP-operated Transocean-owned *Deepwater Horizon* deep-water drilling facility suffered a catastrophic blowout in the Gulf of Mexico in April 2010. The *Deepwater Horizon* CFIF was the worst environmental disaster the US has ever faced, causing significant environmental harm to the waters and land of the Gulf of Mexico area, and severe economic harm to commercial interests in the Gulf of Mexico.[68] The effect of the Varanus and Montara CFIFs in Australia, as well as the *Deepwater Horizon* is

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[60] Productivity Commission, above n 31.

[61] See statistics available at International Regulators' Forum, *Global Offshore Safety: Member Country Profiles* (2010) <http://www.irfoffshoresafety.com/country/>.

[62] Z Lambert and B Richardson, 'Final Report of the Findings of the Investigation into the Pipe Rupture and Fire Incident on 3 June 2008 at the Facilities Operated by Apache Energy Limited on Varanus Island' (Report, NOPSA, 2010).

[63] Ibid.

[64] Montara Commission of Inquiry, *Report of the Montara Commission of Inquiry* (2010) Department of Resources, Energy and Tourism <http://www.ret.gov.au/Department/Documents/MIR/Montara-Report.pdf>.

[65] NOPSA, *Safety Case Approach* (2010) 17 <http://www.nopsa.gov.au/safety.asp>.

[66] Ibid.

[67] Montara Commission of Inquiry, above n 64, 16-17.

[68] National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling, *Deep Water: The Gulf Oil Disaster and the Future of Offshore Drilling* (2011) <http://www.oilspillcommission.gov/final-report>.

significant since the Commonwealth government recently announced a grant of exploration drilling rights to BP in deep water off the coast of South Australia at a depth three times that of BP's disastrous *Deepwater Horizon* project. Other deep-water projects are likely in the next few years as licences are granted in the deep-water Mentelle Basin southeast of Perth.[69] This importance is also heightened since both the Varanus and Montara CFIFs in Australia were attributed to inadequate regulation arising from the current complex regulatory arrangements for offshore petroleum facilities.[70]

Since 2009, there have been several detailed analyses of the regulation of offshore petroleum facilities, with all reports finding that the current regulatory arrangements fail to demonstrate best practice standards. The 2008 review of NOPSA's operations concluded that NOPSA has made good progress in building a world-class occupational health and safety (OHS) regime.[71] However, it also articulated that to reduce the risk of a CFIF, NOPSA's legislative responsibility needs to be extended to cover the complete hydrocarbon chain (from well to a transport transfer point or a system boundary), and retaining multiple regulators was not best practice.[72] The Australian Productivity Commission, in its 2009 *Review of Regulatory Burden on the Upstream Petroleum (Oil and Gas) Sector* also considered the regulation of safety in the offshore jurisdiction.[73] Its research report concurred with the NOPSA review, concluding that the legislative coverage of NOPSA should be extended to include the integrity of all offshore facilities, including pipelines, subsea equipment, and wells, as regulatory duplication and complexity arising from the framework of multiple regulators creates unnecessary economic costs.[74] This is because industry is required to comply with three sets of regulatory frameworks – one for occupational health and safety, one for well, facility and pipelines integrity, and a third for environmental assessment, compliance and monitoring.[75]

An assessment on the effectiveness of Australian offshore petroleum safety regulation by Bills and Agostini in 2009, after the Varanus Island CFIF, noted that the failure to include well integrity in the regulation of offshore petroleum safety was detrimental to offshore petroleum safety, and that the SCR regulating pipelines does not presently represent best practice.[76] They also noted that in complex, high hazard industries such as offshore oil and gas, society expects a robust regulatory system where operators maintain safety to minimise risk of a CFIF, and regulators provide assurance that this is being done.[77] The MCI found that the Northern Territory DA's regulatory regime was totally inadequate, blaming its minimalist approach to regulatory oversight as a contributing factor to the lax standards of the operator, PTTEPAA.[78] The Commission also concurred with the 2008 recommendations from the NOPSA review, the recommendations of Bills and Agostini related to best practice in offshore petroleum safety in 2008, and the 2009 recommendations of the Productivity Commission that the legislated coverage of NOPSA should be extended to cover the whole of the petroleum production chain, similar to the Norwegian approach to facility integrity regulation.[79]

Clearly, several studies of the Australian offshore petroleum safety regime have identified a higher risk of CFIFs in the present complex regulatory system. These findings and recommendations have all highlighted the need for reduced complexity in regulatory arrangements, with a single regulator regulating offshore petroleum jurisdictions under a single regulator, such as the case of the UK and Norway.

The main area of inconsistency and therefore confusion in the administration of offshore petroleum is that of well regulation. In its submission to the Productivity Commission, APPEA concluded that the area where most reform is

[69] Department of Resources, Energy and Tourism, and Geoscience Australia, 'Exploring and Investing in Australia: Overview for Applicants 2010' (Report, 2010).

[70] Montara Commission of Inquiry, above n 64; Lambert and Richardson, above n 62.

[71] Ognedal, Griffiths, and Lake, above n 4, 8.

[72] Ibid 5-6.

[73] Productivity Commission, 'Review of Regulatory Burden on the Upstream (Oil and Gas) Sector' (Research Report, 2009) 34.

[74]Ibid 245-7.

[75] Ibid.

[76] Bills and Agostini, above n 4, 17.

[77] Ibid xvi.

[78] Montara Commission of Inquiry, above n 64, 13-14.

[79] Ibid 19-20.

required is the administration of Well Operations Management Plans (WOMPs), subsea equipment and pipelines.[80] This is because regulatory responsibilities are shared between the DAs and NOPSA. These are the activities that carry risks to the integrity of a facility, and the total petroleum system, and the interaction between the various activities is critical to the safety performance of operations and should be regulated by a single body.[81] The sum effect of this large number of statutes regulating offshore petroleum, split over a large number of regulatory bodies is regulatory burden for stakeholders, and inconsistencies in regulation. This may result in either regulatory duplication, or worse still, regulatory gaps that result in incidents at offshore facilities.

3.2 Regulatory burden, duplication and inconsistencies

In 2006, the Council of Australian Governments (CoAG) recognised that although some attempts have been made to streamline upstream petroleum regulation and harmonise local, State and Commonwealth legislation, there was scope for further improvement in the regulation and administration of the Australian offshore petroleum sector.[82] Consequently, the Australian Productivity Commission commissioned an inquiry into regulatory burden and impediments that hamper petroleum exploration and production in Australia.[83] The Commission was concerned with the efficient and effective regulation of offshore petroleum activities, and the cost of unnecessary burden.

The Commission's review of regulatory burden demonstrated that the current legislative provisions' dual level of offshore petroleum resource management at State and Commonwealth level, as well as the added jurisdictional layer of local government planning and approvals continue to impose significant regulatory burdens on the upstream offshore petroleum sector.[84] Regulatory burdens may be defined as 'those incremental costs that could be eliminated by better regulatory design, administration and enforcement, without detracting from desired policy outcomes or objectives.'[85]

Regulatory burdens have been identified as a source of increased cost and delay in projects, contributing to the decreased attractiveness of a province as a location for investment in petroleum activities.[86] In petroleum regulation, regulatory burdens can include unnecessary delays and uncertainties in obtaining required approvals, overlapping or inconsistent regulatory requirements, especially if there are multiple jurisdictions.[87] The current Australian regime has been identified as a regulatory environment that is burdensome for oil companies because of not only the multiple jurisdictions, but also hundreds of regulatory approvals and decision points.[88] Each of these means hundreds of opportunities for regulatory failure,[89] which translate to lost opportunity for sustainable socio-economic development of petroleum resources.

The Productivity Commission found that the legal and administrative burdens characterising the current legislative framework impose significant economic effects on the participants, affecting the economic return of a project.[90] Regulatory burden increases compliance costs in major projects, as well as increasing project expenditure and delay approvals.[91] In addition, regulatory constraints that delay or defer production start-up can diminish project returns, reducing net present value of economic benefits likely to be generated.[92] These burdens hamper the development of

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[80] APPEA, Submission No 16 to Productivity Commission, *Review of the Regulatory Burden on the Upstream Petroleum (Oil and Gas) Sector*, 19 September 2008, 20 <http://www.pc.gov.au/__data/assets/pdf_file/0019/83422/sub016.pdf> (17 October 2008).

[81] Ibid.

[82] Council of Australian Governments, *CoAG: Meeting Outcomes: Reducing the Regulatory Burden* (2006) <http://www.coag.gov.au/coag_meeting_outcomes/2006-07-14/index.cfm#reduce>.

[83] Productivity Commission, *Review of Regulatory Burden on the Upstream Petroleum (Oil and Gas) Sector: Productivity Commission Issues Paper* (2008) <http://www.pc.gov.au/__data/assets/pdf_file/0018/82026/upstream-petroleum-issues.pdf>.

[84] Productivity Commission, above n 31, XXIII.

[85] Productivity Commission, above n 83, 6-7.

[86] See the submission by APPEA to the Productivity Commission relating to regulatory burdens in the Australian upstream petroleum sector: APPEA, above n 80, 6.

[87] Productivity Commission, above n 83, 6-7.

[88] APPEA, above n 80, 7.

[89] Ibid.

[90] Productivity Commission, above n 31; Productivity Commission, 'Review of Regulatory Burden on the Upstream (Petroleum and Gas) Sector' (Draft Report, 2009) 184.

[91] This is particularly evident in Western Australia. See Productivity Commission, above n 31, 9; and Productivity Commission, above n 73, 183-4.

[92] Productivity Commission, above n 73, 186-7.

petroleum in Australia, as they create delays, reduce flexibility, impede the financing of projects and defer production and revenues.[93] This has a major impact on the economic viability and sustainability of a project. It is estimated that expediting the regulatory approval process for a major project by one year can increase the net present value of returns by 10-20% since it brings forward the income streams.[94]

These burdens also have a negative impact on investment attractiveness, which has been identified as an Australian petroleum policy objective.[95] High compliance costs, and delay costs arising from Australia's complex regulatory regime not only reduces the profitability for all participants, but also reduces the sector's ability to attract project capital from international investors.[96] Indeed the Victorian government estimated that delays under the current JA/DA model are significant, costing up to $1.1 million per day.[97]

The potential for regulatory burdens arise from three broad sources:

- problems with the regulations themselves;
- poor enforcement and administration; or
- unnecessary duplication and inconsistency.[98]

The Productivity Commission noted that unnecessary duplication and inconsistency is not inherently bad, since when they arise from different circumstances between jurisdictions, and from a competitive federalism perspective, they can lead to better outcomes overall.[99] It also noted that duplication and inconsistency occurred to the detriment of good oilfield regulation. The greatest regulatory challenge therefore appears to be multiple, overlapping and duplicative regulatory responsibilities.[100] This overlap occurs not only between Commonwealth and State governments, but also with local government laws, regulations and approvals. Both regulators and industry see this identified regulatory duplication as creating problems in the regulation of petroleum resources. As the Victorian government notes:

> Under the current JA-DA model, there is substantial duplication in the administration of the administration and assessment process for permit/licence grants. This duplication arises from the iterative processes carried out by both the Commonwealth and DAs for the same assessments…improvements in the efficiency of approvals process have the potential to deliver real benefits to the sector.[101]

This notion of duplication, and the economic cost of such duplication, was reiterated by Exxon Mobil, who echoed the concerns of many oil companies when it submitted that:

> while the Federal and State responsibilities individually dictate the extensive approval requirements in each jurisdictions, given the multi-jurisdictional nature of most petroleum projects, the result is that there are multiple duplicated approvals processes and many opportunities for each regulator within the separate jurisdictions to take issue with a given proposal.[102]

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[93] Productivity Commission, above n 31, XXIII.

[94] Ibid XXV.

[95] See Department of Industry, Sciences and Tourism, *Australian Offshore Petroleum Strategy – A Strategy to Promote Petroleum Exploration and Development in Australian Offshore Areas* (Department of Industry, Science and Tourism, 1999) 2-3.

[96] Productivity Commission, above n 31; Productivity Commission, Productivity Commission, *Review of Regulatory Burden on the Upstream (Petroleum and Gas) Sector Draft Report*, (Productivity Commission, 2009) 190.

[97] Victorian Government, Submission No 7 to Productivity Commission, *Review of the Regulatory Burden on the Upstream Petroleum (Oil and Gas) Sector*, 2008, 4.

[98] Productivity Commission, above n 31, 34.

[99] Ibid.

[100] Ibid XLI.

[101] Victorian Government, above n 97, 4.

[102] Exxon Mobil, Submission No 16 to Productivity Commission, *Review of the Regulatory Burden on the Upstream Petroleum (Oil and Gas)* Sector, 2008, 7

Regulatory inconsistency was also identified by industry as a major obstacle in the efficient and effective administration of offshore petroleum activities, with 'a consistent lack of consistency between the regulatory authorities' a source of much frustration and cost for industry.[103] This regulatory inconsistency was observed to be not only a result of differing legislation, but also regulator attitude. Some stakeholders submitted to the Productivity Commission Review that the NTDA is seen as more proactive in dealing with regulatory burden than other jurisdictions.[104] The Commission noted that this widespread perception of the NT as a jurisdiction with less 'red tape' encouraged Inpex to plan to build a pipeline from offshore WA to Darwin.[105] However, it is important to note that this lack of 'red tape' ultimately led to the catastrophic blowout and oil spill in the Montara field. The cause of the blowout was directly attributable to the NTDA, with the MCI noting that 'the resources and expertise that the NT DoR [Department of Resources] devoted to its task as delegate of the DA were inadequate',[106] 'reflective of a profound misunderstanding of what is required of a regulator under the modern-day objective ... approach to regulatory oversight'.[107]

In providing submissions to the Productivity Commission, some stakeholders suggested that regulatory inconsistency arises due to differences in regulatory interpretation, rather than differences in the regulations themselves.[108] Thus, a source of unnecessary regulatory burden or inconsistency is the result of onerous interpretation rather than actual legal inconsistencies.[109] However, it could be argued that a unique situation, field or project requires just such an onerous interpretation of the regulations, and it is this local knowledge and capacity for the regulator to interpret the regulations narrowly that ensures that each project is regulated in a manner most consistent with that field and/or the objectives of the jurisdiction. For example, the exploitation of oil from a culturally or environmentally sensitive area in remote WA may well require more onerous standards for drilling rigs than those operating in Bass Strait. Therefore, the regulatory inconsistency in either the WA regulations, or the interpretation of these regulations by the WA regulator, may be appropriate in such circumstances.

4 The Solution - an offshore petroleum regulator (NOPR)?

In order to remove regulatory inconsistencies and duplication, improve productivity and decrease regulatory burden in the Australian petroleum industry, the Productivity Commission recommended the establishment of a new national offshore petroleum administrative body.[110] The recommendations include the establishment of a new independent statutory authority that would serve as a single national offshore administrator in Commonwealth waters, with regulatory responsibility for resource management, pipelines and environmental approval and compliance.[111] The Commission considered a number of regulatory options, settling on two viable options.[112]

The first option is a national offshore petroleum regulator for Commonwealth and coastal waters (NOPR Model). Under this model, a national regulator is established, responsible for upstream petroleum resource management, pipeline and environmental regulation in Commonwealth and coastal waters, resource management and environmental regulation in coastal waters, and assumes the role of the State government petroleum agencies. Whilst this model could reduce regulatory inconsistencies and duplication between Commonwealth and coastal waters, the Commission acknowledged that any efficiency gains associated with this model are reliant on States and the NT conferring administrative and decision making process in coastal waters to the national regulator and the responsible Commonwealth Minister.[113] The Commission also acknowledged that it would be a significant challenge to gain the agreement of the States and Territories to cede control over all petroleum regulation in State and Territory waters. WA agrees with this assessment, and has indicated that it intends not to confer regulation of its State and Coastal

[103] Nexus, Submission No 16 to Productivity Commission, *Review of the Regulatory Burden on the Upstream Petroleum (Oil and Gas)* Sector, 2008, 7.

[104] Productivity Commission, above n 31, 211.

[105] Ibid.

[106] Montara Commission of Inquiry, above n 64, 16.

[107] Ibid.

[108] Productivity Commission, above n 31, 153.

[109] Ibid.

[110] Ibid XX.

[111] Ibid 292.

[112] Ibid findings 9.2 and 9.3.

[113] Ibid 255.

Waters on a national offshore petroleum regulator.[114]

The second model is a national offshore petroleum regulator for Commonwealth waters only (NOPR-CW). Under this model, the Commission proposed that the States would regulate all petroleum activities in their State and Coastal waters, and the Commonwealth would regulate all activities in Commonwealth Waters, although the States would have the options to roll in regulation of their Coastal Waters to the Commonwealth if they chose. The Commission identified two main advantages of the Commonwealth Waters Model over the current DA arrangements:

- it would reduce the potential for duplication and delay that arises from the joint administrative role of the Commonwealth government and State and Territory governments in Commonwealth waters under the OPGGSA; and

- it would improve governance arrangements by separating the regulatory role for Commonwealth waters from the policy role of the Commonwealth government and State and Territory petroleum agencies.[115]

Under either of these models, if a State refused to confer its powers to the NOPR, then there would still be a requirement for a dual regulatory framework, and its associated regulatory concerns. This is not an optimal scenario for the petroleum industry. Its peak body, the APPEA, has identified dual levels of administration as a problem, since they increase the amount of compliance costs.[116] A single administrative model was highlighted by the APPEA as an effective way of regulating petroleum exploitation in a clear, effective and transparent manner.[117] Further, APPEA sees a single authority model as a system capable of providing all necessary approvals, licences and permits for petroleum exploration and production, whilst at the same time encouraging investment in petroleum activities.[118]

5 Beyond Varanus and Montara - where to now?

The Montara incident highlighted a number of fundamental issues relating to the regulation of offshore petroleum facilities. The MCI was struck by the substantial divergence of offshore regulatory practices in Australia.[119] Furthermore, the MCI concurred with the view of other recent inquiries into offshore petroleum[120] that at a minimum the proposal of the Australian Productivity Commission to establish a National Offshore Petroleum Regulator should be pursued.[121] The MCI also concurred with the previous reports that well integrity should be moved to NOPSA, since ensuring well integrity is essential for facility safety and integrity.[122]

5.1 Regulatory reform to date

The Varanus and Montara incidents have prompted the Australian government to proceed with regulatory reform of offshore petroleum legislation. In 2009, the Commonwealth government embarked on a program of consolidation of the numerous existing offshore petroleum regulations and guidelines. The *Offshore Petroleum and Greenhouse Gas (Safety) Regulations (2009)* (Cth) brought together safety regulations into a single regulation, and repealed the *Petroleum (Submerged Lands) (Occupational Health and Safety) Regulations 1993* (Cth), the *Petroleum (Submerged Lands) (Management of Safety on Offshore Facilities) Regulations 1996* (Cth), and the *Petroleum (Submerged Lands) (Diving Safety) Regulations 2002* (Cth).[123] Also in 2009, significant amendments were made to the *Offshore Petroleum and Greenhouse Gas Storage Act (Environment) Regulations 1999* (Cth), and the

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[114] Western Australia, Department of Mines and Petroleum, *Moore Opposes Proposed National Offshore Regulator* (18 January 2011) (Western Australia Department of Mines and Petroleum News Archive) <http://www.dmp.wa.gov.au/pdf/7105_11526.pdf>.

[115] Productivity Commission, above n 31, finding 9.2, 258.

[116] APPEA, above n 80, 7.

[117] Ibid 49.

[118] Ibid.

[119] Montara Commission of Inquiry, above n 64, 17.

[120] Ibid.

[121] Ibid 18.

[122] Ibid.

[123] *Offshore Petroleum and Greenhouse Gas (Safety) Regulations (2009)* (Cth) s 1.4.

Regulations were renamed the *Offshore Petroleum and Greenhouse Gas Storage Act (Environment) Regulations 2009* (although the Regulations had commenced on 1 October 1999).[124] In response to the Montara blowout, the amendments included changes regarding requirements for oil spill contingency plans.

The final part of the reform to offshore petroleum Regulations was completed in April 2011, and entered into force on 29 April 2011. The *Offshore Petroleum and Greenhouse Gas Storage (Greenhouse Gas Datum) Regulations 2010* (Cth), the *Offshore Petroleum and Greenhouse Gas Storage (Management of Greenhouse Gas Well Operations) Regulations 2010* (Cth), the *Offshore Petroleum and Greenhouse Gas Storage Regulations 1985* (Cth), the *Petroleum (Submerged Lands) (Data Management) Regulations 2002* (Cth), the *Petroleum (Submerged Lands) (Datum) Regulations 2004* (Cth), the *Petroleum (Submerged Lands) (Management of Well Operations) Regulations 2004* (Cth), and the *Petroleum (Submerged Lands) (Pipelines) Regulations 2001* (Cth) were combined and reformulated as the *Offshore Petroleum and Greenhouse Gas Storage (Resource Management and Administration) Regulations 2011* (Cth) (Resource Management Regulations). The Resource Management Regulations were the most difficult of the regulatory reforms, since they repealed seven different regulations into a single regulation. They were drafted in consultation with all regulators, industry and academics, and resulted in regulations that have the objective of ensuring petroleum operations are not only administered in the correct manner, but are carried out in accordance with good oilfield practice, and compatible with the optimum long-term recovery of petroleum.[125]

The Montara blowout demonstrated the difficulties associated with the splitting of the regulation of wells and facilities between the DA and NOPSA. Essential interim reforms to the management of well operations and WOMPs were introduced into Federal parliament in February 2010 as part of the reforms to the OPGGSA under the Offshore Petroleum and Greenhouse Gas Storage Legislation Amendment (Miscellaneous Measures) Bill 2010 (Cth) (Offshore Petroleum Bill). It sought to augment the powers of NOPSA by conferring functions and powers in relation to the non-OHS structural integrity of facilities, wells and well-related equipment. Under the amended provisions proposed in the Bill, the structural integrity of wells, that have previously fallen outside of the auspices of NOPSA were to be regulated by NOPSA. This would allow NOPSA to take a comprehensive approach to assessing the integrity of structures without any question regarding the scope of its functional responsibilities. The Bill was passed in November 2010, and conferred the regulation of well integrity on NOPSA. In addition, pursuant to the *Petroleum (Submerged Lands) (Management of Well Operations) Regulations 2004* (Cth), consolidated as part 5 of the Resource Management Regulations, the DA was replaced by the 'safety authority' as the regulator of wells and WOMPs. The reforms enable NOPSA to approve/reject WOMPs, as well as regulate individual well activities.[126]

5.2 A national offshore petroleum regulator?

As a consequence of the Productivity Commission report, the Commonwealth Government announced in August 2009 that it intended to create a NOPR, with the regulator to commence operations by 1 January 2012.[127] The Commonwealth has stated that it is its view that fundamental institutional reform regarding the regulatory arrangements for offshore petroleum is required since the current JA and DA arrangements have led to significant regulatory duplication, slow decision-making, unclear regulatory accountability, inefficient use of regulatory resources, inconsistent decision making across Commonwealth offshore areas and resistance to reform.[128] Furthermore, the Commonwealth sees the creation of a NOPR as having the potential to significantly reduce the time for approvals processes by reducing administrative duplication, streamlining regulatory processes, providing greater transparency in decision-making and consolidating resources.[129] To fund the implementation of a NOPR, amendments to the *OPGGSA* passed under the *Offshore Petroleum and Greenhouse Gas Storage Legislation Amendment (Miscellaneous Measures) Act 2010* (Cth) enable the Commonwealth to retain money raised from industry registration fees under the *Offshore Petroleum and Greenhouse Gas Storage (Registration Fees) Act 2006* (Cth), rather than being returned to the States and the Northern Territory.[130]

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[124] *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth) s 2.

[125] *Offshore Petroleum and Greenhouse Gas (Resource Management and Administration) Regulations (2011)* (Cth) reg 1.04.

[126] NOPSA, *Administration of the Commonwealth Wells Regulations by NOPSA, March 2011* (2011) 6 <http://www.nopsa.gov.au/document/Presentation%20-%20Well%20integrity%20-%20March%202011.pdf>.

[127] Department of Resources, Energy and Tourism, 'Commonwealth Government Response to the Productivity Commission Review' (2011) 8-9.

[128] Ibid.

[129] *OPGGSA* s 642.

[130] Offshore Petroleum and Greenhouse Gas Storage Legislation Amendment (Miscellaneous Measures) Bill 2010 (Cth).

The Commonwealth has noted that APPEA has expressed a very strong view that NOPSA and the NOPR should be a single entity, since there are a number of practical and administrative benefits that would flow from a single regulatory authority, and there are strong synergies in the regulation of safety and environment.[131] APPEAs position is supported by the findings of the MCI, which recommended that the roles of NOPSA and the NOPR be combined. This will establish a single regulatory authority that will be responsible for safety, well integrity and environmental plans, and industry policy and resource development would reside in government departments.[132]

The Commonwealth declared in February 2011 that:

> in dealing with recent approvals under the Act and the uncontrolled release of oil and gas from the Montara Wellhead Platform in the Timor Sea, it has become more clearly apparent that decisions relating, to safety, environmental management and resource management have significant overlapping implications.[133]

As such, the Commonwealth has reviewed its upstream petroleum regulatory reform model and proposes that:

- the JA be retained for key title decisions;
- a National Offshore Petroleum and Titles Administrator (NOPTA) within the Department of Resources, Energy and Tourism becomes an adviser to the JA on resource titles, registrar of titles, and collector of data; and
- the functions of NOPSA be expanded to include regulation of well and pipeline integrity, environment plans and day-to-day operations under a National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA).[134]

Under this model, the regulatory functions of environmental plans and compliance under the *OPGGSA* will be undertaken by NOPSEMA. The Department of Sustainability, Environment, Water, Population and Communities will remain the regulator of environmental approvals and compliance under the *Environment Protection and Biodiversity Conservation Act 1999* (Cth).[135] The Federal Budget for 2011 has estimated that the appropriation of offshore petroleum fees under the amendments to the *OPGGSA* will realise $15 million, which will be partly utilised to contribute to the establishment of a NOPR.[136]

On the 18 February 2011, the MCMPR met to consider the Commonwealth's proposed responses to the Productivity Commission Review, especially the establishment of NOSPEMA and NOPTA, with the Minister for Resources and Energy advising the MCMPR that the Commonwealth will implement the revised reforms in the Commonwealth areas.[137]

5.3 The Western Australian position

Under the proposed Commonwealth model, regulation of State and Coastal Waters will require the States to confer its powers to the Commonwealth. Western Australia has indicated that they will not be conferring the regulation of their State and Coastal Waters on the Commonwealth, in line with present regulatory arrangements regarding NOPSA in WA waters. Furthermore, some jurisdictions (WA in particular) have raised concerns that the establishment of a NOPR may create disconnect between the development of projects in Commonwealth offshore areas and jurisdictions' ability to ensure State and industry interests are addressed in these projects. The Commonwealth maintains that these concerns are addressed by retaining the role of State and Territory ministers, via the JA process, in key decisions relating to field development plan approvals as well as granting titles,

[131] Department of Resources, Energy and Tourism, above n 127, 8-9.

[132] Montara Commission of Inquiry, above n 64, 20.

[133] Department of Resources, Energy and Tourism, above n 127, 8-9.

[134] Ibid.

[135] Ibid.

[136] Department of Resources, Energy and Tourism, 'DRET Budget Statements 2011' (2011) 26.

[137] Department of Resources, Energy and Tourism, above n 127, 9.

authorities and consents for permits and licences. However, these arrangements are less than satisfactory for projects in WA and underlie WAs refusal to confer regulatory powers over the Coastal and State Waters on the Commonwealth. This is because WAs regulations are a unique and complex arrangement, which are the result of extensive State waters. The complex regulatory arrangements for titles are outlined below:

- Commonwealth waters – these are the waters covered by the *OPGGSA*, and comprises titles in waters of the continental shelf outside the 3 nautical mile territorial sea.

- The Coastal Waters of Western Australia – encompassing waters titles under the *Petroleum (Submerged Lands) Act 1982* (WA) (*WAPSLA*). These titles are those that, like all other State/Territory jurisdictions, are those titles located in the territorial sea (from the baseline seaward to three nautical miles). However, unique to WA, there are also some titles regulated by the *WAPSLA* that are landward of the territorial sea baseline but external to the mainland States. These titles originate from pre-1982 exploration permits issued under the *Petroleum Submerged Lands Act 1967* (Cth), which formerly extended into those waters. The *PSLA* also covers all offshore pipelines in either Coastal waters, or the internal waters. This coverage extends from the mean low water mark (either on an island or the mainland) to the outer limit of the territorial sea.

- Internal Waters of Western Australia – waters landward of the territorial sea baseline (or inner limit of the territorial sea). These areas are regulated by the *Petroleum and Geothermal Energy Resources Act 1967* (WA) (*PGERA*).

As illustrated in Figure 3 below, there are many petroleum titles that are located in the WA State Waters area, and are regulated by the *PGERA* rather than the *PSLA*. This complex regulatory framework creates a unique petroleum jurisdiction in WA that is not reflected in any other Australian petroleum-producing jurisdiction. When the Productivity Commission recommended a single regulatory authority, it failed to consider the regulatory complexities of the WA regulatory framework arising as a result of the vast State waters containing dozens of petroleum titles that are administered under the *PSLA* and *PGERA*.

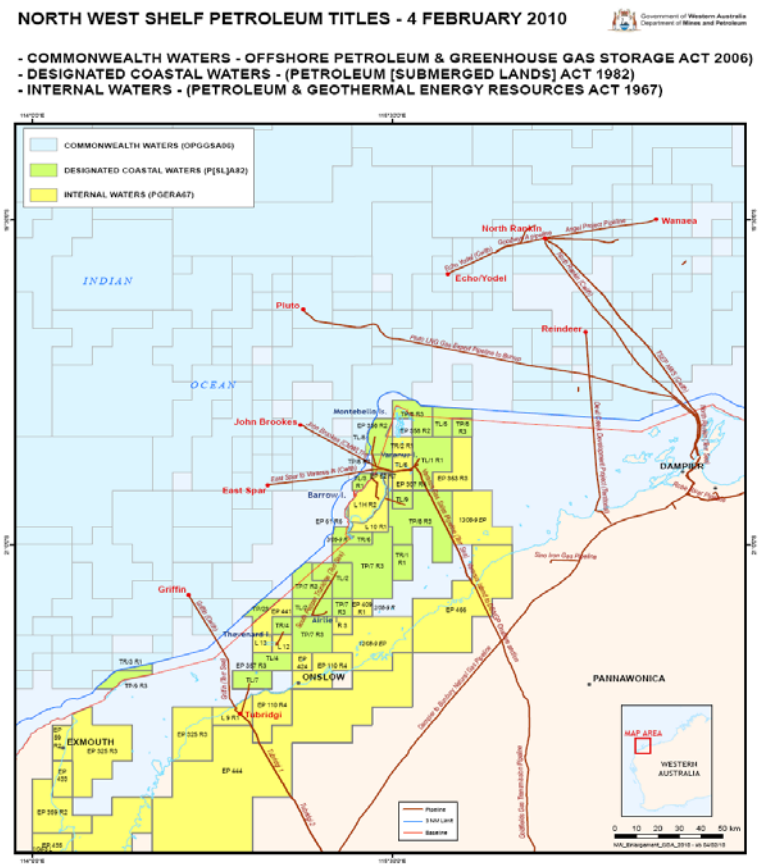

Figure 3: Petroleum Titles within State Waters in Western Australia

Aside from the complex regulatory arrangements in WA, it must be remembered that WA is a global gas heavyweight, being one of the top ten natural gas provinces in the world.[138] It holds the vast majority of Australia's gas resources, particularly in the Browse, Carnarvon and Bonaparte Basins. Together these three basins hold approximately 136-158 Tcf of gas reserves, representing approximately 85% of Australia's gas reserves and the North West Shelf area contains significant offshore oil reserves (over a billion barrels) with prospective onshore areas, particularly the Barrow Island oilfield.[139] At present Australia provides approximately 10% of the world's LNG with the majority produced in WA from the NWS LNG trains. The demand for WA resources is evidenced by the placement of WA in the top 25 global jurisdictions for investment in petroleum exploration in 2009.[140] This placed WA, along with Victoria and South Australia as attractive jurisdictions for investment, well ahead of Queensland, Norway and the United Kingdom.

This may lead to the conclusion that if WA was forced to conform to a single national regulator it may be detrimental to the regulation of petroleum activities in the western petroleum basins in Australia, since the substantial oil and gas reserves of WA has required the WA DMP to develop infrastructure, resources and a regulatory framework that responds to these unique needs. Given the unique regulatory arrangements in WA, the volume of resources, the pace of resource development, and the need for the WA government to expand infrastructure to support the development of oil and gas resources, the reticence of the WA government to embrace a national petroleum regulator is understandable.

Aside from WA, many other petroleum-producing jurisdictions are supportive of the Commonwealth's proposed regulatory model. This creates a dilemma for the Commonwealth government - how can the regulatory impediments be removed, while still meeting the regulatory needs in regions in Australia?

Perhaps one solution to this dilemma is the creation of two distinct petroleum regulators, based on geography rather than levels of government. The first regulator (a single safety, environment and resource management regulator as proposed by the MCI) would be located in the west, and responsible for regulating all offshore petroleum activities and associated activities. This Western Basin Regulator (WBR) would regulate petroleum activities in the WA and NT DA areas, as well as all Commonwealth Waters, thus establishing a single, competent regulatory authority but confined to the offshore petroleum areas of WA and the NT.

The second regulator would operate in all eastern and central petroleum basins that are regulated by NSW, Queensland, Victoria, Tasmania and South Australia. This regulator would also be a single regulator, established using the suggested Commonwealth's proposed model to establish a NOPR that will regulate all other petroleum jurisdictions (including coastal and State waters) where the States confer regulatory authority upon the Commonwealth.

At first glance, this seems like a ridiculous suggestion. Yet consideration of this proposed geographical division of regulation has the potential to solve many of the regulatory issues identified by the Productivity Commission Report, the Bills and Agostini Report and the findings of the MCI. Regulatory burden and duplication occurs when the projects cross State-Commonwealth or State-State jurisdictional boundaries. Furthermore, the MCI recognised that major contributory factors to the Montara CFIF were the NT regulators' failure to ensure the integrity of the wells drilled, and the inexperience of the operator. The WA regulator is recognised as a regulator of excellence, experienced in the management of wells and WOMPs, and experienced in regulating the operations of both experienced and inexperienced operators.

The proposed establishment of a Western petroleum regulator for Western petroleum basins and a national regulator for the remaining petroleum basins would eliminate regulatory burden arising from regulatory overlap and regulatory inconsistencies, as each province would be regulated by a single regulator. The WA DMP would be the logical regulator to assume all regulatory duties over the Western petroleum basins. The WA DMP is an experienced and competent regulator, and is presently charged with regulating over 70% of Australia's petroleum resources. As

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[138] Western Australia, Department of Industry and Natural Resources, *Room to Grow Your Petroleum Business – Western Australia* (2007) <http://www.dmp.wa.gov.au/documents/081721Room_to_Grow.pdf>.

[139] Ibid.

[140] Fraser Institute, *Global Petroleum Survey 2010* (2010) 17 <http://www.fraserinstitute.org/uploadedFiles/fraser-ca/Content/research-news/research/publications/global-petroleum-survey-2010.pdf>.

part of a proposed Western basin regulator, the NTDA's responsibilities would be subsumed by the WA DMP as the Western regulator, thereby eliminating the concerns of the MCI regarding the level of regulatory competence of the NTDA. Further, this regulatory arrangement would require the Commonwealth to delegate the regulation of its Commonwealth Waters in Western Australia and the NT to the WA DMP.

Although unorthodox, the proposed WBR model would incorporate local knowledge, excellence in regulation, and the recommendations of five reports that seek to establish a single regulator for petroleum activities. The petroleum industry has articulated that what it seeks from a regulatory regime is a 'one stop shop' for all regulatory approvals, safety and environmental regulation requirements, rather than the multiple regulators that may result from a NOPR CW model or a NOPR model where WA does not confer regulation to the NOPR in State or Coastal Waters. The Productivity Commission concluded that a single regulator should be created to regulate the whole of the petroleum chain, similar to the Norwegian system of regulation. The creation of a WBR and an Eastern NOPR would establish two geographically-based petroleum areas, each regulated by a single regulator charged with the regulation of the resources, safety and environment of all petroleum development within its area. This would provide industry the 'one stop shop' that it requires for efficient and effective exploration and production of offshore petroleum resources.

A close examination of this suggestion reveals that this scenario has indeed already occurred, with the Western Australian jurisdiction excluded from a number of significant 'national' systems. When the Family court was established in 1976, Western Australia sought not to participate in the Court. Consequently, the Family Court of Western Australia was established in 1976, to consider all family matters in Western Australia. Western Australia is also not a participant in the National Electricity Market (NEM), a connected power system in Australia that was established in 1998. The NEM is a gross-pool electricity market that incorporates six States and Territories. However, it is not a truly national market since WA and the NT are not physically connected to the NEM and therefore not part of the NEM. This is because of a lack of electrical interconnections between east and west, and the vast distances between the loads centres and the interconnected network in the southern and eastern states.[141] Essentially, the conditions in WA and the NT are such that participation in and a part of the NEM is economically and physically unviable.

WA argues that the circumstances pertaining to the exploration and production of offshore petroleum resources in its jurisdiction are unique, and that a NOPR regulating all petroleum activities in all jurisdictions is not beneficial. Given the unique circumstances of the WA petroleum jurisdiction, it could be argued that, as noted by the Productivity Commission, regulatory duplication and inconsistencies that would arise with a NOPR and a WBR may, from a competitive federalism perspective, lead to better outcomes in the management of Australian offshore petroleum resources.[142] Cooperative federalism is about the States and the Commonwealth working together for the greater good of the nation to implement effective systems to regulate activates. In this instance, a geographical division of regulation, rather than the division of regulation by level of government may accomplish the efficient and effective regulation of offshore petroleum activities.

A risk when creating a dual system of regulation in the east and west is that of legal or regulatory divergence. Whilst in the regulation of electricity or family court matters the separation of Western Australia from the remaining Australian jurisdictions has been for either practical means, or has resulted in little jurisprudential variation, this is not always the case. Pollution laws in the Australian states, whilst once uniform in the 1980s when the states gave legislative effect to MARPOL,[143] have become increasingly divergent. This divergence has arisen since the 1990s, when each of the states enacted relevant provisions of the relevant international legislation regarding offshore pollution legislation to reflect local issues.[144] If a separate WBR and NOPR are created, legislative and policy uniformity must be maintained between the two regulators in order to ensure that all stakeholders in offshore petroleum activities have certainty and uniformity.

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[141] Energy Futures Australia, *Electricity Industry Reform Process* (2010) <http://www.efa.com.au/Page.aspx?intPageID=7>.
[142] As discussed by the Productivity Commission, above n 31, 34; and considered in section 3.1 above.
[143] MARPOL refers to *International Convention for the Prevention of Pollution by Ships*.
[144] Michael White, *Australasian Marine Pollution Laws* (Federation Press,2nd ed. 2007), 137.

6 Conclusion – is Australian offshore petroleum regulation drowning in a sea of federalism?

This paper questions whether Australian offshore petroleum regulation is drowning in a sea of federalism, especially in the post-Varanus and post-Montara era. An examination of the regulatory arrangements across Commonwealth, Coastal and State waters demonstrates a unique level of complexity that arises out of the OCS. These current regulatory arrangements have some serious deficiencies, especially regulatory inconsistencies, regulatory duplication and have created unnecessary regulatory burden. In addition, the recent CFIFs are attributable to the existing regulatory framework as well as regulator failure.

There is no doubt that a single offshore petroleum regulator is required, nor is there any doubt that one will be created. What needs to be determined is what form the regulatory framework will take. Will it regulate Commonwealth waters only, Commonwealth and State waters in some States but not others, or all waters in all States? Short of rewriting the OCS (which is suggested by the eminent Australian maritime law scholar Michael White),[145] the existing constitutional arrangements will restrict the capacity of the Commonwealth to regulate all offshore petroleum activities unless and until the States and Territories confer their regulatory powers upon the Commonwealth. WA has clearly and strongly indicated that it will not support a NOPR model that required the conferral of power to the Commonwealth. This position by WA demonstrates that perhaps Australian offshore petroleum regulation is drowning in a sea of federalism, as the sea of cooperative federalism recedes.

Yet the unique system of titles and jurisdictions in WA, combined with the vast resources and need to develop state infrastructure, may well part the sea. The creation of a WBR to regulate all offshore petroleum activities in WA and the NT, as well as a NOPR for the regulation of offshore petroleum activities in all other jurisdictions may provide an innovative solution. The creation of a NEM that excludes WA and the NT due to physical and market constraints has succeeded. Perhaps the NEM can provide the States, NT and the Commonwealth with a blueprint of how there can be innovative solutions to regulatory issues arising, ensuring that the seas of federalism remain calm.

[145] Michael White, *Australian Offshore Laws* (Federation Press, 2009) 403-405.

Defined Terms

APPEA	Australian Petroleum Production and Exploration Association
CFIF	Catastrophic Facility Integrity Failure
CoAG	Council of Australian Governments
Coastal Waters	Waters 3 nautical miles seaward from mean low water mark
Commonwealth Waters	Waters seaward of 3 nautical miles to edge of Exclusive Economic Zone, 200 nautical miles seaward from the mean low water mark
DA	Designated Authority
IRT	Independent Review Team
JA	Joint Authority
MCI	Montara Commission of Inquiry
MCMPR	Ministerial Council on Mineral and Petroleum Resources
NEM	National Electricity Market
NOPR	National Offshore Petroleum Regulator
NOPR model	Proposal by Productivity Commission to establish a national offshore petroleum regulator for Commonwealth and Coastal waters
NOPR-CW model	Proposal by Productivity Commission to establish a national offshore petroleum regulator for Commonwealth waters only
NOPSA	National Offshore Petroleum Safety Authority
NOPSEMA	National Offshore Petroleum Safety and Environmental Management Authority
NOPTA	National Offshore Petroleum and Titles Administrator
NT	Northern Territory
NTDA	Northern Territory Designated Authority
OCS	Offshore Constitutional Settlement
Offshore Petroleum Bill	Offshore Petroleum and Greehouse Gas Storage Legislation Amendment Bill 2010 (Cth)
OHS	Occupational Health and Safety
OPA	*Offshore Petroleum Act 2006* (Cth)
OPGGSA	*Offshore Petroleum and Greehouse Gas Storage Act 2006* (Cth)
Petroleum Agreement	1967 Petroleum Agreement
PGERA	*Petroleum and Geothermal Energy Resources Act 1967* (WA)
PSLA	*Petroleum (Submerged Lands) Act 1967* (Cth)
Resource Management Regulations	*Offshore Petroleum and Greehouse Gas Storage (Resource Management and Administration) Regulations 2011* (Cth)
SCR	Safety Case Regime
WA	Western Australia
WA DMP	Western Australian Department of Mines and Petroleum
WAPSLA	*Petroleum (Submerged Lands) Act 19*82 (WA)
WBR	Western Basin Regulator
WOMP	Well Operations Management Plan