
Regulating the environmental impact of oil and gas activities in the exclusive economic zone and extended continental shelf

In this article Ceri Warnock discusses the implications of the Exclusive Economic Zone (Environmental Effects) Bill 2011 and whether it is capable of protecting New Zealand's oceans from the risk of oil and gas activities. Ceri Warnock is a Senior Lecturer at Otago University.

Introduction

There can be little doubt that the Deepwater Horizon disaster catalysed the present governmental action directed towards the environmental management of New Zealand's oceans. The suggestions of an environmental permitting regime for the exclusive economic zone and extended continental shelf (EEZ-ECS) had been languishing at the policy development stage for over a decade before the oil spill in the Gulf of Mexico. But the Exclusive Economic Zone and Continental Shelf (Environmental Effects) Bill 2011 (the Bill) is now before Parliament and it is envisaged that the legislation will be brought into force before the end of 2012. This brief article considers whether the proposed legislation appears capable of improving the environmental protection of New Zealand's oceans from the risks inherent in oil and gas activities, and in particular whether the reforms are likely to do anything to minimise the prospects of an accidental oil spill.

Present regime

At present, the environmental effects of oil and gas activities that take place within the territorial sea are regulated by the Resource Management Act 1991 (RMA), but activities taking place beyond the 12 nm limit are subjected to a more limited environmental management regime. In simple terms, an operator wishing to conduct petroleum activities in the EEZ-ECS must obtain a prospecting, exploration or mining permit from the Minister of Energy. In deciding whether to grant any permit, the Crown Minerals Act 1991 (CMA) regime requires the Minister to focus upon maximising the efficient exploitation of the petroleum resource.¹ Little consideration is given to environmental matters at this stage and indeed there are no regulatory requirements for environmental protection to be factored into the decision-making. The Ministry for the Environment and Maritime NZ issued "Environmental Best Practice Guidelines for the Offshore Petroleum Industry" in March 2006, but these guidelines are described as "voluntary principles" and "are not intended to be legally enforceable". The only principle in the Guidelines that contains any clear procedural measure, places the onus very much on industry self-regulation:

5.1 Environmental Assessment Operators shall undertake an environmental assessment to address significant potential impacts on the marine environment. The Operator will develop strategies, procedures and practices to manage or mitigate those specific impacts of their activities.

Upon granting a CMA permit, the Minister can place any condition he sees fit on that permit² and theoretically this

could include conditions relevant to environmental management, but this has not been the approach adopted thus far. The standard conditions simply refer back to industry practice by requiring the holder to make "all reasonable efforts" to operate in accordance with "good exploration and mining practice".³ For completeness, the Maritime Transport Act 1994 (MTA) makes the deliberate dumping or discharge of waste from offshore installations, in the absence of express permission, an offence, and s 8(1) of the Continental Shelf Act 1964 empowers the Governor-General to make regulations that could promote the environmental protection of this area, but none have ever been made.

The regulatory regime addressing liability in the event of a spill is more developed. Rule 102 of the Marine Protection Rules requires all operators to hold liability insurance of NZ\$30 million before commencing operation in New Zealand waters (although to place this sum in context, BP has set aside US\$41 billion to date to cover clean-up costs and liability flowing from the Deepwater Horizon spill); the MTA requires all operators to prepare a discharge management plan that outlines emergency procedures to be taken; and Maritime NZ operates a national oil spill response strategy.

Perhaps the primary regulatory measures that promote environmental protection of the EEZ-ECS, albeit in an indirect way, concern the integrity of offshore installations: rigs must be designed and constructed in accordance with generally accepted and appropriate industry practice⁴ and must carry a valid certificate of fitness, assessed by an accredited inspector quinquennially.⁵ Operators also have to comply with the provisions of the Health and Safety in Employment (Petroleum Exploration and Extraction) Regulations 1999 in preparing a "Safety Case" for offshore installations. A "Safety Case" is standard industry practice and ensures the collation of comprehensive information on safety measures relevant to the specific vessel or installation.

To summarise, the existing legislative framework focuses primarily on the aftermath of an accidental discharge and minimal regulatory attention is directed to the active prevention of environmental damage. That such an approach to the environmental protection of our oceans is inadequate cannot seriously be challenged.

New proposals

The Bill proposes to change this situation by introducing an environmental permitting regime for activities undertaken in the EEZ-ECS. An explanation of the Bill was provided by

Vernon Rive the previous issue of BRMB⁶ but there are certain features worthy of specific attention in the context of petroleum exploration and exploitation.

The first point concerns the classification of activities. At this stage in the reform process it is unclear how oil and gas activities will be classified for the purposes of permitting. It is possible that prospecting activities and exploratory activities such as seismic surveying will be permitted subject to the operator meeting certain standards (for example, standards based upon the "Guidelines for Minimising Acoustic Disturbance to Marine Mammals from Seismic Survey Operations") but it is extremely likely that exploratory well-drilling and full-scale production will attract discretionary activity status and require consent.⁷

An interesting question arises therefore as to whether the Environmental Protection Agency (EPA) will take into account the inherent risks of a spill, present with all deep-sea drilling, but a risk that becomes more acute in the treacherous waters of New Zealand's EEZ. The Bill contains a definition of effects that replicates s 3 of the RMA and so, in determining whether to grant consent, the EPA is mandated to consider "any potential effect of low probability which has a high potential impact". Given that the statutory wording is identical in cl 6 of the Bill and s 3 of the RMA, a fair assumption is that the case law on risk developed by the Environment Court will guide the EPA. In *Shirley Primary School v Christchurch City Council* [1999] NZRMA 66 (at [142]), the Environment Court determined that a "scintilla of evidence" pointing towards a "real risk" was sufficient to factor a risk into decision-making. If the EPA were to adopt this test, it would be extraordinary if the risks of a spill were not taken into account in every application concerning deep-sea drilling for petroleum. But the new regime is far from risk-averse. Whilst the risk of a spill may be taken cognisance of, it is unlikely to prove determinative because of the purpose of the Bill and the tests for consent. The purpose is contained in clause 10 and provides that:

The Act seeks to achieve a balance between the protection of the environment and economic development in relation to activities in the exclusive economic zone and on the continental shelf.

In considering whether to grant consent, and once all the potential effects of the activity have been assessed, the EPA may—

- (a) grant an application for marine consent, in whole or in part, and issue a consent if the activity's contribution to New Zealand's economic development outweighs the activity's adverse effects on the environment; or
- (b) refuse the application if the adverse effects of the activity on the environment outweigh the activity's contribution to New Zealand's economic development.⁸

Whilst this is described as a balancing test, in reality where a conflict arises one value (economic development versus environmental protection) will have to be preferred. Petroleum provides our third most valuable export. A recent report commissioned by the Ministry of Economic Development anticipates the royalties from petroleum exploita-

tion over the next decade to be in the region of NZ\$8.5 to 12.7 billion, if exploration is increased.⁹ Those figures do not include any calculations as to the wider economic benefits of the development of the New Zealand petroleum industry. In the circumstances, the test is loaded in favour of consenting to the exploration and exploitation of petroleum. Once consent is obtained, cl 59(5) of the Bill protects the capital investment in any operation by favouring the continuance of consents.

The Bill is interesting in making explicit reference to the precautionary principle, but the legislature has chosen to adopt a weak form of precaution by prescribing an adaptive management approach to be taken in the event of uncertainty. Clause 13 provides that:

- (1) In achieving the purpose of this Act, a person performing functions and duties or exercising powers under it that affect the environment must—
 - (a) make full use of the information and other resources available to it and of its powers to obtain information and expert advice and commission research; and
 - (b) base decisions on the best available information; and
 - (c) take into account any uncertainty or inadequacy in the information available.
- (2) If, in relation to the making of a decision under this Act that affects the environment, the information available is uncertain or inadequate, the person must favour caution and environmental protection.
- (3) If favouring caution and environmental protection means that an activity is likely to be a prohibited activity or a marine consent is likely to be refused, the person must first consider whether taking an adaptive management approach would allow the activity to be undertaken.
- (4) In this section, best available information means the best information that, in the particular circumstances, is available without unreasonable cost, effort, or time.

An adaptive management approach is not suited to petroleum extraction. The likelihood is that petroleum exploration and exploitation will continue apace, and consents are unlikely to be refused. The emphasis must therefore be upon ensuring that such activities are conducted in the safest possible manner.

Interim Measures

At present there are no existing mining petroleum permits in the EEZ but there are 18 current exploration permits. In general, a petroleum exploration permit will only be granted where the applicant's work programme makes a commitment to drill an exploration well within the duration of the permit, and once the permit is granted the holder will be under a legal obligation to drill.¹⁰ Given the likelihood of exploratory wells being drilled prior to the enactment of the legislation, the Government has issued proposals for an interim regime.¹¹ Operators will be requested to submit an

Environmental Impact Assessment to the EPA before drilling commences. The Government has stated that it will bear the costs of preparing this document. Secondly, operators are being asked to comply with the United States of America's Bureau of Ocean Energy Management, Regulation, and Enforcement (BOEMRE) Drilling Safety Rule. Such measures cannot be imposed upon operators and they are being asked to comply voluntarily, however it seems likely that these standards will become requirements once the legislation is enacted.

Fundamental Concerns

The requirement that offshore installations comply with the US Drilling Safety Rule is a positive development. The Drilling Safety Rule primarily contains a series of prescriptive, technical requirements to address well bore integrity and well control equipment to minimise the chance of a blow-out, and was implemented in accordance with Secretary Salazar's report following the Gulf disaster.¹² That New Zealand is following the "lessons learnt" by the United States is entirely positive, but it is vital that the Salazar reforms are considered as a whole. A critical part of the proposed reforms in the United States concern the necessity for increased oversight by regulators. Before the Salazar review, BOEMRE experts inspected a rig during construction and, once it was in location, every 30 days. Inspectors conducted both announced and unannounced inspections and were required to undertake comprehensive and systematic reviews at each inspection, and details as to the inspections required are specified in the Departmental program. However, this level of regulatory oversight was felt to be inadequate. Following the review, BOEMRE is now providing teams of experts to undertake inspections and reviewing processes to further improve oversight (inspectors will have additional duties, for example directly witnessing tests of all blowout preventer equipment). The resources and expertise required to conduct this level of regulatory oversight is phenomenal and contrasts sharply with the situation in New Zealand. The Department of Labour is charged with monitoring the activities of the petroleum industry, in accordance with the Health and Safety in Employment Act 1992. At present, New Zealand has one inspector to manage all onshore and offshore petroleum and geothermal activity. A recent independent consultant's report commented that:¹³

... the New Zealand inspectorate appears significantly under-resourced with respect to regulatory review, monitoring, inspection and enforcement. This represents a serious risk to the adequacy of the existing regulatory regime to anticipate or prevent a major pollution incident from offshore petroleum operations.

The Department of Labour has confirmed that, "with only one specialised resource working on petroleum, the current inspector finds it difficult to achieve more than simply reacting to issues raised by the industry". But the Department has also warned that increasing the number of independent inspectors will prove challenging: the international pool of expertise is small and companies and governments internationally compete by offering high remuneration.¹⁴

Perhaps conscious of these difficulties, a recent Cabinet Briefing paper envisaged that there will be "at least one [planned] inspection per year for each manned installation, where practicable."¹⁵

Whilst the Bill allows the EPA to impose conditions on marine consents that may include monitoring of the activity, it cannot "impose a condition to deal with an effect if the conditions would have the same or a similar effect as, or conflict with, a measure required in relation to the activity by another marine management regime or the Health and Safety in Employment Act 1992".¹⁶ Thus the EPA will not be able to use its statutory powers to remedy an inadequate monitoring system that stems from a lack of prioritisation in government funding.

Conclusion

The purpose and provisions of the Exclusive Economic Zone and Continental Shelf (Environmental Effects) Bill lean towards the continuing exploration and exploitation of New Zealand's offshore petroleum reserves. The greatest protection of our oceans will come with ensuring the integrity of offshore installations and appropriate industry practices and procedures, and the lessons from the Gulf disaster include the necessity of comprehensive regulatory oversight. Unless the Government is willing to address this present flaw in administration, the implementation of the new legislation will fall short of adequately promoting the protection of our marine environment.

Footnotes

1. Crown Minerals Act 1991, s 22(1)(b); Minerals Programme for Petroleum 2005 paras 2.10-2.18.
2. Crown Minerals Act 1991, s 25(1).
3. See for example Petroleum Exploration Permit 52707 granted to Petrobas, 1 June 2010, Schedule 1, General Conditions 1.
4. Health and Safety in Employment (Petroleum Exploration and Extraction) Regulations 1999, reg 12.
5. *Ibid* regs 24, 25.
6. Vernon Rive "On balance: some preliminary observations on the Exclusive Economic Zone and Continental Shelf (Environmental Effects) Bill 2011" (2011) 9 BRMB 63.
7. Note that an activity must not be classified as permitted if, in the Minister's opinion, the activity is likely to have adverse effects on the environment or an existing interest that are "significant in the circumstances", Exclusive Economic Zone and Continental Shelf (Environmental Effects) Bill 2011, cl 29(4). It is unclear how "significant in the circumstances" will be interpreted.
8. Exclusive Economic Zone and Continental Shelf (Environmental Effects) Bill 2011, cl 61(2).
9. Woodward Partners "Valuation of the Crown's Royalty Streams from the Petroleum Estate", March 2011, available at http://www.med.govt.nz/templates/StandardSummary_____44660.aspx. Note that this encompasses onshore and offshore reserves although the greatest reserves are believed to be offshore.
10. Minerals Programme for Petroleum 2005, paras 5.4.17, 5.4.47.

11. New Zealand Government Cabinet Paper "Exclusive Economic Zone and Extended Continental Shelf Environmental Effects Legislation Interim Measures and Other Improvements to the Regulatory Regime for Offshore Petroleum", 27 July 2011.
12. "Increased Safety Measures for Energy Development on the Outer Continental Shelf", 27 May 2010, United States Government Department of the Interior.
13. Atkins Holm Joseph Majurey Ltd "Comparative Review of Health, Safety and Environmental Legislation for Offshore Petroleum Operations", September 2010, Ministry of Economic Development, Wellington, p 31.
14. Department of Labour "Practical Proposals for improving the Department of Labour's approach to High Hazard Industries" July 2011, Wellington, p 11-12.
15. New Zealand Government Cabinet Paper "Exclusive Economic Zone and Extended Continental Shelf Environmental Effects Legislation Interim Measures and Other Improvements to the Regulatory Regime for Offshore Petroleum", 27 July 2011, p 15.
16. Exclusive Economic Zone and Continental Shelf (Environmental Effects) Bill 2011, cl 62(3).

Urban Spacemen

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Introduction

This article considers the rationale for the proposed Auckland Plan that will introduce spatial planning into the New Zealand context. It examines the background to the plan in the debate about Auckland governance, before considering whether the planning framework under the Resource Management Act 1991 (RMA) could be used to achieve similar outcomes in other regions without further statutory reform.

Auckland Plan

The discussion document outlining the strategic directions and options for the Auckland Plan was launched on 23 March 2011. Submissions closed on 31 May 2011 and the consultation draft of the Auckland Plan was issued on 20 September 2011. Following submissions and hearings it is anticipated that the Auckland Plan will become operative in December 2011.

It is for note that the Auckland Plan is different from plan preparation previously carried out under the Local Government Act 2002 (LGA) or the RMA. The focus of the Auckland Plan is long-term and firmly based on sustainability and it is intended to influence "existing and future land use patterns";¹ the "location of critical infrastructure";² and identify "nationally and regionally significant" ecological areas, landscapes, open spaces, unstable land, landscapes, heritage areas and natural features.³ In particular, the plan is intended to address:⁴

... how Auckland might develop, including the **sequencing of growth** and provision of infrastructure. (Emphasis added)

To give effect to the "strategic direction" the plan will include:⁵

... policies, priorities, programmes, and **land allocations** to ... indicate how resources will be provided to enable that to happen. (Emphasis added)

The Auckland Plan will therefore be a forward planning document par excellence that will be implemented under the LGA and the Auckland Governance legislation by the Council's long-term plan and funding and financial policies, and under the RMA by the unitary plan that will be notified by the Council in 2012.⁶ For example, the discussion document advises that:⁷

Aspects of planning, design and service provision (e.g. land use zones, water, waste) can have profound impacts on the economic performance of Auckland. The spatial arrangements ultimately set out in the Auckland Plan must link with the vision to enable Auckland to excel globally. Auckland's future form must capitalise on the city's distinctiveness and core competitive strengths to provide for long-term strategic and sustainable economic development.

In addition to the linkages between growth and infrastructure provision, the plan will also enable the Council to integrate land use zoning and transport planning, as the Regional Land Transport Strategy and Programme will also give effect to the Auckland Plan.

What is spatial planning?

Options for spatial planning were set out in the Cabinet paper recording decisions taken by the *Cabinet Committee on Implementation of Auckland Governance Reforms* on 15 October 2009.⁸ Spatial plans are an entirely new planning method in the New Zealand context, and were defined by the Cabinet paper as having the following attributes:

4. ... Internationally, spatial plans layout a long-term, strategic direction for a region and its communities, including social, economic, cultural and environmental objectives and articulate the region's role in the country. This direction enables effective management of rapid