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PEPANZ submission on discussion document "Managing third party risk exposure from onshore petroleum wells"

Introduction

This document constitutes the Petroleum Exploration and Production Association of New Zealand's (PEPANZ) submission in respect of the discussion document *Managing third party risk exposure from onshore petroleum wells* ("discussion document"), which was released by the Ministry of Business, Innovation and Employment ("MBIE") on 22 March 2017. PEPANZ represents private sector companies holding petroleum exploration and mining permits, service companies and individuals working in the industry.

This submission is in three parts:

- Part 1 – Introduction
- Part 2 – Proposed way forward
- Part 3 – Responses to questions posed in the discussion document

Summary

- We support careful consideration being given to the issues identified in the discussion document and how these might be appropriately managed over time. It is important however to note the scale of possible issues appears to be modest and is likely to reduce over time if sensibly managed.
- We are concerned the focus of the discussion document is reactive and limited to managing financial risks from possible adverse situations rather than to acting proactively to reduce the likelihood or scale of those situations. The discussion document also understates central government's underlying role as owner of the petroleum resource.
- Existing regulatory tools are available to reduce relevant risks and standard regulatory principles suggest use of existing regulations should be prioritised in advance of introducing unproven new tools, particularly where the potential new measures misalign risks and responsibilities and have costs disproportionate to the risks.

- PEPANZ considers Option 1 (Guidance) may have merit if carefully considered and developed following the resolution of key matters.
- PEPANZ supports Option 2 (Monitoring insurance) in concept but questions the proposed approach to implementing it.
- PEPANZ does not support Option 3 (Bonds) or Option 4 (Levy/Fund). The costs of imposing bonds would appear to significantly exceed the scale of the issue to be managed. Seeking to collectivise possible costs across this or any other similar industry though a levy/fund would not be equitable and would fail to align risks with those parties that have an ability to manage them.
- Government should focus efforts on further reducing possible exposures rather than introducing costly financial instruments to try and mitigate them. Whilst Options 1 and 2 would make only a modest contribution in themselves, combined with the options outlined in Part 2 of this submission, these would make a meaningful contribution to further reducing the potential for, and scale of, any well related costs falling to parties other than the relevant permit holders.
- PEPANZ and its industry members consider further constructive engagement is required on how to best manage the risks associated with the non-abandonment or failure of petroleum wells. We would also welcome opportunities to collaborate with government on assessing and if necessary abandoning or remediating historical or orphan wells.

Part 1 – Introduction

PEPANZ considers the issues raised in the discussion document are important ones and welcomes attention being given to them. These issues are not however new, or necessarily growing, and regulatory developments made in recent years are already contributing to managing them. We support careful consideration being given to the scale of any risks and how these might be appropriately managed and reduced over time.

The risks posed by deep wells (primarily the potential to enable the flow of fluids or gases between previously unconnected strata and/or the surface) is an issue the petroleum industry shares with the geothermal sector. The focus in the discussion document on petroleum wells as opposed to other petroleum infrastructure is logical as issues associated with other surface facilities (plant, pipelines etc.) are much the same as for other industries with similar types of facilities (chemical industry, downstream petroleum, various manufacturing, pulp and paper etc.).

There has been increased policy and regulatory attention on the upstream petroleum sector in New Zealand in recent years. This has been a consequence of increased government focus on the sector, heightened interest internationally and increased activity levels over the 2010-2014 period, rather than as a consequence of any specific adverse domestic events. Relevant regulatory frameworks have been reviewed and improved and regulator capability enhanced. Central government has begun in recent years to focus on issues associated with the decommissioning of oil and gas fields. The Parliamentary Commissioner for the Environment (PCE) produced two reports on the upstream sector in 2012 and 2014, with this discussion document responding to recommendation four from the 2014 report.

Specific regulatory developments of relevance in recent years to the issues in the discussion document include:

- Changes to the *Crown Minerals Act 1991* ("CMA") in 2013 that provided for increased upfront assessment of permit holders, including that they have the capability and systems required to meet the health and safety and environmental requirements of relevant legislation.

- The introduction, also in 2013, of independent well examination for the drilling, operation and abandonment of wells pursuant to the then *Health and Safety in Employment (Petroleum Exploration and Extraction) Regulations 2013*. This process provides an independent check on critical elements of well design and operations, including the plugging and abandonment of wells. Requirements to have wells reviewed regularly by the well examiner (e.g. yearly) both reduce the risks of well problems and encourage the abandonment of inactive wells.

We note the discussion document does not discuss managing the risk exposure from historic onshore petroleum wells (i.e. those that "do not currently have a permit holder or resource consent holder that can be found liable"). As identified in the Advisian report[1] the majority of risk appears to be associated with historical activities and this area therefore represents the crux of the management challenge.

The scale of possible issues associated with non-historical wells appears to be modest and is likely to reduce over time if sensibly managed (as a consequence of the number of inactive wells being reduced by being plugged and abandoned), even with further wells being drilled. The modelled risk exposure for "owned wells" in the Advisian report of $14 million over a ten-year period, considered to be conservative/high by the authors, is largely made up of the modelled possibility of a business failure/s occurring.[2] This theoretical exposure is modest, in comparison with for example the Crown's returns from petroleum (e.g. equates in value to less than a month's worth of petroleum royalties). It is also much higher than the equivalent cost of $1.12 million over the last 150 years of oil and gas activity in New Zealand described in the discussion document.

We have concerns with how the issues and options have been framed in the discussion document, including:

- that the key issue is framed as a conceptual problem underpinned by inherently theoretical analysis of possible future risks and based on overseas precedents of questionable relevance to domestic conditions;
- the focus of the discussion document is reactive and limited in nature (managing financial risks from possible adverse situations) rather than proactively reducing the likelihood or scale of those situations;
- based on the facts outlined in the discussion document the costs of some of the proposed solutions are disproportionate to the problem; and
- the options in the discussion document are outlined at a level of generality that makes specific and detailed responses impractical.

Part 2 – Proposed way forward

The discussion document is focussed on using financial mechanisms to manage the potential cost exposure of non-industry parties from issues associated with current and future onshore petroleum wells. As outlined elsewhere in this submission there should be an equal, if not greater, focus on considering the mechanisms that can be used to manage and reduce the practical exposure.

What needs to be practically achieved is for permit holders to plug and abandon wells in a timely manner and for these abandonment operations to be executed in a technically robust way. If this occurs the risk exposure over both the short and long term is dramatically reduced, both at an individual permit level and collectively. Accordingly this should be a focus of government attention.

[1] "Preliminary Review of Onshore Petroleum Abandonment Risk" for the Ministry of Business, Innovation and Employment, Advisian New Zealand, October 2016.
[2] Refer pages 3 and 12 of the Advisian report.

Appendix A of the supporting Advisian Report usefully categorises wells and the 153 wells covered by categories 2 – 4 as described in that report (owned non-producing but not abandoned wells, many of which are in existing producing fields) are a logical focus for attention.

Measures that should be progressed or further explored include:

1. Further utilising existing frameworks, such as annual review meetings under the CMA, to regularly consider and discuss the status of all a permit holder's wells and its plans to plug and abandon inactive wells.
2. Actively monitoring and if necessary enforcing requirements to plug and abandon wells prior to petroleum permits being surrendered, which has not necessarily occurred in the past.
3. Further considering and potentially implementing Options 1 and 2 in the discussion document.
4. Considering introducing a framework under the CMA for managing down over time un-utilised well stock. For example, introducing limitations of time on maintaining wells in a suspended status without clear potential future uses identified. Any such controls would need to be carefully considered in terms of how they are applied to existing permits to ensure the impacts are constructive and avoid perverse outcomes such as unnecessarily creating orphan wells or encouraging the plugging and abandoning of wells that may still have value.
5. Ensuring through the health and safety regulatory regime that well abandonment operations are undertaken to a high standard. While regulatory oversight and resourcing has been increased substantially in recent years through the creation of the specialist High Hazards Unit in WorkSafe NZ it is important focus is retained in this area.

Another practical measure that should be considered further is industry collaboration with government on assessing and if necessary abandoning or remediating historical or orphan wells. Whilst the current industry is not responsible for historical activities it would welcome opportunities to collaborate, for example through establishing a group to undertake any required remedial work (contractor costs for historical work might for instance be government funded with pro-bono or discounted contributions of expertise from industry operators). Collaboration between central government, industry and local government will help facilitate effective and efficient resolution of any well related issues that arise in future.

Part 3 - Responses to questions posed in the discussion document

Question 1. Do you agree with our assessment of the issues? If not, why not? What other factors would you consider?

There are a number of components to the problem definition outlined in the discussion document. In responding to Question 1 we will address each in turn under the headings provided in the document. As outlined above in Part 1 we are concerned with the narrow focus of the discussion document and the emphasis on managing financial risks rather than reducing practical risks.

Third parties are currently financially exposed from onshore petroleum wells

We generally agree with the analysis outlined in paragraphs 30 to 32 of the discussion document, which is related to how third parties are currently financially exposed from onshore petroleum wells. It is important to note however that this is a theoretical analysis and this situation is not dissimilar to that applying to other industries. Whilst risks associated with business insolvency are issues faced by

businesses and landowners in a range of contexts we agree it is unreasonable for parties such as landowners to be exposed to well related costs.

We disagree with an aspect of the reasoning seemingly underlying the discussion document. This is the implicit view that everybody other than individual petroleum permit holders, or perhaps the petroleum industry more generally, is a "third party" in relation to oil exploration and development and therefore petroleum wells, including most notably the Crown.

Paragraph 1 of the discussion document states that "Third parties include land owners and occupiers, and the Crown as a last resort." This statement appears to confuse the issues of who is genuinely a third party with which party might ultimately meet the costs. There are a range of reasons why the Crown/central government is not a "third party" with regard to petroleum wells:

- the Crown owns the petroleum resource;
- industry participants (i.e. permit holders) explore for and produce the Crown's petroleum at its behest and specific authorisation and subject to its terms, and following the lawful surrender, or revocation, of a permit the Crown takes back the ability to reallocate access to the petroleum resource in that area;
- government benefits financially from petroleum production undertaken by permit holders though royalties (since 2008 the Crown has received $3.2 billion in royalties and production levies from petroleum production);
- government imposes various regulatory controls on the industry's activities and exercises closer regulatory control over this sector than most, if not all, other sectors of the economy, including:
    - through the CMA it:
        - controls the allocation of, activities under, transfer of, and ultimately surrender of petroleum permits; and
        - provides the framework for access to land to undertake petroleum activities;
    - all industry activities (including well construction, use and abandonment) take place pursuant to health and safety (including well specific provisions) and environmental legislation; and
    - central government agencies MBIE and WorkSafe NZ, and local government agencies, actively oversee the activities of those companies with permits to explore for and produce petroleum onshore.

Both government and oil and gas companies are central to the exploration and production of petroleum resources in New Zealand, whereas all other parties (including any landowners with wells on their land) are of the nature of third parties, even though some will have direct contractual relationships with permit holders (e.g. land access arrangements). It is also important to recognise that industry participants are third parties when it comes to activities undertaken by other industry participants.

The discussion document outlines under paragraph 31 two possible situations where third parties are potentially financially exposed from onshore petroleum wells:

a) remediating a well that fails; and

b) plugging and abandoning a well that poses an environmental or health and safety risk, in cases when the permit holder failed to do so.

We consider that in order to more closely align with the natural sequencing of activity, distinct risks, commercial and regulatory arrangements and potential policy options (including proactive options) it is more logical to present these as three possible situations as follows:

a) remediating a well that fails during the life of a permit;

b) plugging and abandoning a well during the life of a permit; and

c) remediating a well after it has been plugged and abandoned and the permit surrendered.

There are other some other matters to note in relation to the analysis under the heading "Third parties are currently financially exposed from onshore petroleum wells" including:

- in a number of cases wells are located on a wellsite where the land is owned by the permit holder;
- where wells are drilled on land owned by someone other than the permit holder this takes place pursuant to an access arrangement under the CMA and before signing these landowners receive independent legal advice, which is paid for by the permit holder;
- permit holders are often joint ventures of multiple permit participants and pursuant to section 33 of the CMA these parties are jointly and severally liable for their responsibilities under the permit (including any prescribed well decommissioning responsibilities); and
- of the four cases of historical well failure mentioned in paragraph 32 of the discussion document where it states that "third parties were financially exposed", and which apparently cost approximately $1.12 million (refer paragraph 37), we understand the majority of that cost was met by central government.

Remediating a petroleum well that fails where third parties are financially exposed <u>*and*</u> *Plugging and abandoning a petroleum well where the permit holder failed to do so*

Where a well fails during the life of a permit this can be managed by the operator and insurance could be called on if relevant.

Given judicious use of existing regulatory requirements it will be possible to effectively manage down the risk of a large scale plug and abandonment obligation remaining at the end of a permit term.

We also note our earlier comments above in response to Question 1 on how dividing this into three situations, rather than two, would be more logical.

Estimates of third party financial risk exposure

We recognise the effort that has been made to try and estimate the possible cost exposure associated with petroleum wells, which is provided in the Advisian report *Preliminary Review of Onshore Petroleum Abandonment Risk* ("Advisian Report"). We note the following in relation to this report:

- as acknowledged by the report's authors the preliminary analysis is inherently high-level and based heavily on overseas samples rather than detailed analysis of New Zealand specific circumstances;
- the hypothetical and probabilistic approach taken is stated by the report's authors to be conservative (i.e. generate higher levels of cost than is likely);
- the resulting modelled risk estimates for the upcoming 10-year period for "owned wells" ($14 million, equating to $1.4 million per annum) are completely out of line with domestic experience to date (approximately $1.12 million over the last 150 years spent by non-permit holder parties on remediating four wells). The 90 per cent range of $11.9 million – $17.40

million shown on pages 15 and 16 of the report suggests a level of confidence on estimates that also does not appear to accord with experience in New Zealand to date; and

- much of the cost estimated in the report relates to risks of companies being unable to meet their commitments due to commercial reasons (e.g. business failure) and given the small scale of the domestic industry any probabilistic assessment is highly problematic due to the small sample size.

Whilst the Advisian Report gives a theoretical estimate of possible cost exposures it is not apparent how the estimates included would provide a basis for specific policy interventions going forward. It does however illuminate what drives most of that risk exposure, that being the risk of a company failure involving a substantial number of inactive (i.e. shut-in or suspended) but not abandoned wells that cannot be taken on by other participants. Measures that mitigate this specific risk will assist in reducing this exposure into the future.

Question 2. Do you agree with our assessment of the New Zealand's current financial risk management mechanisms for onshore petroleum activities? If not, why not?

We have the following comments in relation to the assessment in the discussion document of financial risk management mechanisms associated with petroleum wells:

- the discussion document correctly identifies a number of regulatory mechanisms that already exist under industry specific and cross cutting legal frameworks such as the RMA;
- it is important to remember the limitations identified in regard to the petroleum sector apply similarly to other sectors with similar characteristics; and
- existing mechanisms are generally better suited to ensuring wells are properly abandoned during the life of a permit than to providing for any post abandonment well failure that occurs after a permit has been surrendered, although this is also largely true for other options.

Question 3. Do you agree with these objectives? Would you suggest any others?

For reasons noted elsewhere we question the appropriateness of objectives framed solely around managing financial risks. The key objectives in the area should be for government to understand the practical risk of wells not being abandoned or well failure and then proactively applying measures to sensibly manage that risk. Crown as owner and industry as developer of the petroleum resource will have roles in this. The Crown is well positioned to provide confidence to third parties and to utilise its regulatory powers to ensure good industry practices are undertaken and potential cost exposures are managed.

Question 4. Do you agree with Option 1 to release non-statutory guidance on existing financial assurance mechanisms available to third parties?

Developing and releasing guidance on existing financial assurance mechanisms available to third parties related to onshore wells might have some public benefit if it appropriately articulated risks and how they are managed by the regulatory regime. Such guidance would however only be useful if it provided clear and workable solutions to specific issues. Development of guidance should only occur once the key issues are understood, positions clarified and appropriate approaches have been determined. It would be premature to begin work on guidance prior to this.

This approach would be more useful with regard to future wells than to existing wells and those to be drilled pursuant to existing access agreements, as the latter are both subject to existing land access

agreements and consents. Given there are few plans to develop new sites for drilling at this time the audience for this guidance is presently very limited. Any measures prescribed are also more likely to be suited to addressing the timely abandonment of wells as opposed to any post abandonment well failure that occurs after a permit has been surrendered.

Should the development of guidance along these lines be pursued at some point there are a range of matters that need to be considered and worked through, including:

- the specific purpose of, and audience for, such guidance;
- who is best placed to develop and issue such guidance and the process for developing guidance (e.g. how would representative organisations be involved);
- how the guidance provided would relate to arrangements in other similar sectors (utilities etc.);
- whether the solutions proposed in such guidance are positive on a cost/benefit basis;
- how potential duplications are avoided or resolved;
- the appropriateness of central government providing template land access provisions or "appropriate" levels of financial assurance; and
- how such guidance would be maintained over time (e.g. regular review and appropriate revision) as guidance is only useful if kept up to date.

We also note that whilst guidance can be a beneficial the use of it under the CMA has proved problematic in the past. MBIE's predecessor organisation issued practice statements in the 2000's but then withdrew them as they created more issues than they solved.

Question 5. Do you agree with Option 2 to assess and monitor insurance policies?

PEPANZ **supports** this option being given further consideration. It is a potentially straightforward approach that would provide increased oversight and confidence to regulators and third parties without imposing additional costs or material complexity on industry. We do however question the need to amend the CMA (as referred to in paragraph 63 of the discussion document) to implement this option.

Appropriate well control insurance being in place for permit holders provides a level of assurance to third parties that should there be a loss of well control dedicated independent financial resources will be available beyond those possessed by the permit holder to respond to this. Monitoring such insurance policies would be a proportional approach given the evidence provided that permit holders are already putting in place appropriate insurance coverage. It would seem excessive and out of line with general regulatory principles for government to intervene with new regulation in this area when no practical gap has been identified.

The discussion document suggests amending sections 29A and 29B of the CMA and the *Crown Minerals (Petroleum) Regulations 2007* to implement this policy. We question the usefulness and need for this level of regulatory change. Insurance policies are renewed annually based on expected work programmes. It is important to recognise that this means both that insurance required later in permit life (e.g. when wells are to be drilled) is not necessarily in place at the time of permit award, as it is not required, and conversely that insurance in place when a permit is awarded may not be subsequently. Given this a focus on the insurance position at the time of permit award, which is the scope of sections 29A and 29B, is not ideally aligned with the issue identified.

We also note that making this change in the CMA would potentially apply this to all permits regardless of type and location, which would not be appropriate given the specific scope outlined in the discussion document. A simpler approach would be to address this annually during statutory annual meetings, thereby providing a continuing oversight of insurance coverage without requiring legislative change. Regulatory change could be progressed should this monitoring suggest the existence of a problem that needed addressing.

Question 6. Do you agree with Option 3 to require bonds to cover plugging and abandonment obligations under the CMA?

PEPANZ **does not support** this option, the costs of which appear to heavily outweigh the benefits. While costly it would also only address exposures associated with remediating a well that fails during permit life (that the permit holder can't resolve) or where a permit holder fails to plug and abandon a well during permit life. It would not address any long-term residual risks.

The discussion document identifies the cost of bonds could amount to over $1 billion in the case of cash bonds, or $10 – $40 million per annum in the case of performance bonds, if such a requirement was introduced for all existing wells in essence retrospectively. These amounts are vastly higher than the modelled risk exposure of $14 million over a ten-year period (e.g. indicatively equating to $1.4 million per annum) in the Advisian report and a total cost to date of $1.12 million over the last 150 years.

On basis of this information, such an approach on an effectively retrospective basis would be: grossly disproportionate; highly disruptive for permit holders; impose significant unanticipated costs; represent a very ineffective use of capital; and the retrospective aspect would likely increase perceptions of regulatory risk in New Zealand. The additional costs of bonds would likely deter investment in the sector in New Zealand compared with other jurisdictions and at the same time reduce royalties and taxes paid to the government by existing producers.

Introducing bonds under the CMA for wells to be drilled in the future (i.e. prospectively) would inevitably apply to only a small fraction of wells and result in a piecemeal approach. For many years only a small fraction of wells would be subject to bonding requirements and it would probably be focussed in the wrong areas as newer wells are generally less likely to be an issue.

It is important to note that in those jurisdictions where bonds have been applied in relation to well abandonment this has usually been in response to numerous corporate failures leaving other parties potentially financially exposed and the presence in the industry of many small companies. Neither of these features is strongly present in New Zealand. As had been shown overseas, applying bonds to existing wells retrospectively carries the risk of causing the very problem that is trying to be mitigated (e.g. by imposing substantial new costs that push companies out of business). Conversely, applying bonding requirements on financially sound companies imposes costs for little, if any, benefit in terms of managing risk.

The discussion document notes progressing this option would entail amendment of section 97 of the CMA and the making of new regulations under section 105(k). Were this approach to be progressed in this manner then it would be important to ensure that any changes were limited to the specific issues covered by the discussion document and not used as a means for potentially introducing wider financial instruments on all types/locations of permits.

Question 7. Do you agree with Option 4 to establish a pooled fund that permit holders contribute to through a levy?

PEPANZ does not consider there is an appropriate rationale for and **does not support** mandating the collective pooling of risk such as through a fund supported by an industry levy. The discussion document floats and discusses this concept without providing any clear rationale for why it is an appropriate option, apart from the fact that it is a possible means of deriving revenue to meet potential costs. It is not possible to comment on the purpose, scope and design of such a levy/fund arrangement as this level of detail is not outlined in the discussion document.

The upstream petroleum industry, like other industries, should not be expected to assume collective responsibilities for the liabilities of individual participants. It is reasonable to expect the wider industry to assist where it can in resolving issues caused by other industry participants, but no rationale has been articulated in the discussion document as to why this industry should be expected to accept a form of collective responsibility. This option would not be equitable between industry participants as it would impose costs on all participants and effectively shift possible costs from those who don't meet their obligations to those who do. Industry participants are also third parties when it comes to activities undertaken by other industry participants.

There is a fundamental problem with introducing a levy to create a fund when there is no realistic expectation of whether the fund will be required, and if so when and to what extent. It is for example entirely possible that over the next ten years that there would be zero calls on such a fund. This would appear to have been the case had such a thing been in place over the last ten years. If this turned out what would be done with such a fund? Furthermore, as noted elsewhere in this submission, the risks can be sensibly reduced over time, suggesting that the gradual build of a fund over time is not a logical approach if the risk profile is being reduced. The levy/fund concept would also likely entail substantial administration costs in the context of the seemingly modest risk profile.

Central government forcing the industry to assume a level of collective liability through a levy/fund would be requiring industry participants to pay in advance for remedying a future situation that may or may not occur and over which they likely no control. It is hard to see how this would be equitable.

Question 8. What option or combination of options do you prefer and why?

We consider Option 1 may have merit if carefully considered and developed and following the resolution of key matters. PEPANZ supports Option 2 but questions the proposed approach to implementing it.

We do not support Option 3 or Option 4. The costs of imposing bonds would appear to significantly exceed the scale of the issue to be managed. Seeking to collectivise possible costs across industry with a levy/fund would not be equitable and would not align risks with those parties that have an ability to manage them.

Whilst Options 1 and 2 make only a modest contribution in themselves, combined with the approach we propose in Part 2 of this submission, these measures could make a meaningful contribution to reducing the potential for, and scale of, any well related costs falling to parties other than the relevant permit holders.

As noted previously, measures should be focussed on reducing the practical risks, and/or on individual permit holders, as that is more equitable and avoids creating perverse incentives for industry participants. PEPANZ and its industry members would welcome further constructive engagement with government on these issues.