



Government of **Western Australia**
Department of **Mines and Petroleum**

RESPONSE PAPER

Summary of comments and departmental responses from public consultation for new environment Regulations.

Petroleum and Geothermal Environment Regulations & Guidelines for Preparation and Submission of an Environment Plan

PURPOSE

In December 2011, the Department of Mines and Petroleum (DMP) released two draft sets of petroleum and geothermal environment Regulations for stakeholder and public comment. These Regulations were the:

- *Petroleum and Geothermal Energy Resources (Environment) Regulations 2011*, and
- *Petroleum (Submerged Lands)(Environment) Regulations 2011*.

As well as the Regulations, DMP also sought comment on an accompanying document “Guidelines for the Preparation and Submission of an Environment Plan” (Guidelines).

In January 2012, the third set of environment Regulations, the *Petroleum Pipelines (Environment) Regulations 2012* was also released. The closing date for comments on the draft Regulations and Guidelines was 5pm, Wednesday 29 February 2012.

This paper documents the issues raised in the submissions and outlines DMP’s responses.

BACKGROUND

DMP has proposed to introduce the following State petroleum and geothermal environment Regulations (collectively referred to as the ‘Regulations’):

- *Petroleum and Geothermal Energy Resources (Environment) Regulations 2012*;
- *Petroleum (Submerged Lands) (Environment) Regulations 2012*; and
- *Petroleum Pipelines (Environment) Regulations 2012*.

The proposed Regulations are subsidiary legislation under the following respective Acts:

1. The *Petroleum and Geothermal Energy Resources Act 1967* (PGERA) provides the regulatory framework for all onshore oil and gas exploration and production and in the internal waters.
2. The *Petroleum (Submerged Lands) Act 1982* (PSLA) provides the regulatory framework for the exploration and production of petroleum resources and certain other resources of certain submerged lands adjacent to the coast of Western Australia and includes pipelines.
3. The *Petroleum Pipelines Act 1969* (PPA) provides the regulatory framework for the construction, operation and maintenance of onshore pipelines for the conveyance of petroleum.

DMP's commitment to continuous improvement is demonstrated by the drafting of new Regulations to improve transparency, consistency and enforceability. The new Environment and Resource Management Regulations, soon to be adopted by Western Australia, are congruent with equivalent Commonwealth legislation and its approach to risk management. The proposed Regulations are based on the Commonwealth model in the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009*.

The object of the Regulations is to ensure petroleum or geothermal energy activities are carried out in a manner consistent with the principles of ecologically sustainable development.

The Regulations also aim to ensure that activities are carried out in accordance with an environment plan that:

- demonstrates environmental impacts and environmental risks of the activity will be reduced to as low as reasonably practicable;
- has appropriate environmental performance objectives and environmental performance standards; and
- has appropriate measurement criteria for determining whether those objectives and standards have been met.

Penalty provisions are contained in the Regulations to ensure compliance. The penalties in the Regulations are the maximum allowable under each respective Act. DMP is committed to continuous improvement which includes the suitability of penalties and offences regulated by DMP.

OVERVIEW OF RESPONSES

There were 11 submissions received in response to the exposure drafts, with general categories of respondents including:

State Government Agency	3
State MP	1
Petroleum industry representative body	1
Petroleum company	5
Individuals	1

Respondents were specifically asked to comment on the exposure drafts of the Regulations and the Guidelines.

Comments received on the three sets of Regulations and DMP's response are comments 1 to 108.

Comments received on the Guidelines and DMP's response are comments 109 to 167.

Some comments from respondents were received that did not specifically relate to the Regulations or Guidelines and were considered out of scope. In summary, these comments related to:

- Disclosure of chemicals used in hydraulic fracture stimulation treatments (and other operations) in relation to trade secrets and OH&S requirements.
- Detection and prevention of subterranean leakage with no surface expression
- Drive towards more wells, smaller wells, cheaper wells
- Proper zonal isolation behind casing
- Detailed knowledge of aquifers in the region of hydrocarbon developments
- Geomechanical understanding required for design of fracturing operations
- Consistent and complementary environmental approvals
- Sufficient and high quality regulatory capacity
- Increasing transparency
- Regulatory transparency
- Public health relating to air and water quality
- Cumulative impact assessment
- Reduction in available agricultural land.

COMMON ACRONYMS

ALARP	As Low As Reasonably Possible	NICNAS	National Industrial Chemicals Notification and Assessment Scheme
DMP	Department of Mines and Petroleum	OSCP	Oil Spill Contingency Plan
EPA	Environmental Protection Authority	PDWSA	Public Drinking Water Supply Areas
EP	Environment Plan	PFW	Produced Formation Water
EP Act	<i>Environmental Protection Act 1986</i>	PGER	Petroleum and Geothermal Energy Resources
EMP	Environment Management Plan	PP	Petroleum Pipelines
EA	Environment Assessment	PSL	Petroleum (Submerged Lands)
MOU	Memorandum of Understanding	SCP	Spill Contingency Plan

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Comment	Issue	DMP Response
	Part 1 - Preliminary	
	Regulation 3 – Object	
1	Impacts and risks to water and groundwater dependent ecosystems of the activity are to be managed appropriately. The Regulations focus on risk minimisation referring to impact levels “as low as practicably possible”. However, international environment law has adopted an approach based on “best available technology”. Under this approach technology standards are emphasised rather than cost benefit analyses. Consideration may be given to adopting a similar approach in these Regulations. Should the “as low as reasonably practical” approach be retained, mechanisms should be implemented to ensure the impacts and the risks are acceptable to the regulator as there may be some cases where the adoption of the “as low as reasonably practical” approach may result in acceptable impacts or risks to the water resources.	The Environment Plan (EP) regime promotes and enforces the reduction of environmental risks and impacts of petroleum activities to a level which is as low as reasonably practicable (ALARP). This principle is consistent with Commonwealth petroleum legislation. It is important to note that what is considered practicable will evolve over time as technology and expertise improve. Operators should have a mechanism in place to monitor improvement in technology and practice. This is outlined in the Guidelines for the Preparation and Submission of an Environment Plan. Furthermore, petroleum proposals are assessed on a case by case basis and as such, any potential impacts to water resources are assessed individually. Petroleum proponents are required to demonstrate that the environmental sources of risk and consequent impacts arising from the proposal are identified and can be managed to avoid, reduce, or mitigate environmental harm.
	Regulation 4 – Terms and their definition	
2	Concern about the heavy use in the Regulations of words like “reasonable” (e.g. “reasonably practicable”, “reasonable excuse”, “reasonable excuse or inquiry”); “acceptable”; “moderate” (the adjective) and “significant”. In all cases those words are used with neither a definition, nor an explanation as to what sort of process would be used to make determinations about individual projects. I am fully aware that in some cases such words in Regulations or even Acts merely acknowledge that Regulators and potentially also the courts will have to make judgments of fact and degree about particular circumstances. But used to excess, the risk is that courts will consider some portions of the Regulations to be either practicably non-justifiable, or even void for uncertainty.	The Regulations have mirrored the Commonwealth environment Regulations. Furthermore, petroleum proposals are assessed on a case by case basis and as such, any potential impacts to water resources are assessed individually. Petroleum proponents are required to demonstrate that the environmental sources of risk and consequent impacts arising from the proposal are identified and can be managed to avoid, reduce, or mitigate environmental harm.
3	For the sake of consistency with other Regulations relating to the PPA 69, I would like to suggest that the term “operator” should be replaced with “licensee” in most instances. This amendment could include a qualification where appropriate that the responsibility may be transferred to the operator under contractual conditions for third party owned pipelines.	It is correct that the <i>Petroleum Pipelines Act 1969</i> refers to licensee. However, following the Commonwealth model, the fundamental principle of the Regulations is that the operator is responsible for the preparation and implementation of an EP for an activity.
4	The use of clear and consistent definitions for both the PGER Regulations and the Submerged Lands Regulations is important. Currently, for example, the definition of “petroleum instrument” is different for both sets of Regulations and may need to be reconsidered.	The definition of “petroleum instrument” has been corrected in the PSL (Env) Regulations to maintain consistency with the PGER (Env) Regulations.

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5	The description of terms in the draft Regulations should be consistent, as much as practicable, with the description of terms in existing Acts such as the <i>Environmental Protection Act 1986</i> and the <i>Rights in Water and Irrigation Act 1914</i> . The description of the environment's natural and physical resources should include aquifers, inland waters/water courses and groundwater dependent ecosystems.	Terms are consistent with relevant Commonwealth legislation. 'Natural and physical resources' are included in the definition of 'environment' in the Regulations.
6	Geothermal activities should include (e) hydraulic fracturing and the injection of fluids underground, and inland waters.	Hydraulic fracturing has been included in the definition of petroleum and geothermal activities in the PGERA (Env) Regulations and the PSL (Env) Regulations. The injection of Produced Formation Water (PFW) underground is addressed in Regulation 15.
7	Petroleum activities should include (e) hydraulic fracturing and the injection of fluids underground.	As above.
8	Produced formation water should be retitled "produced water" as this is the term now most commonly used by industry. The description should be broadened to include the recovery of all fluids including natural aqueous fluid as well as previously injected fluids, chemicals and proppants.	PFW specifically refers to water extracted from hydrocarbon reservoirs. Regulation 15 addresses the oil in water content of PFW. The recovery of all other fluids is managed on a case by case basis and is addressed in the EP assessment process.
9	A description for inland waters /watercourse should be added. Consideration may be given to using the description of watercourse in the <i>Rights in Water and Irrigation Act 1914</i> to describe inland waters /watercourse.	'Natural and physical resources' are included in the definition of 'environment' in the Regulations.
10	A table detailing a hierarchy of classification of reportable and recordable incidents would be useful.	Examples of recordable and reportable incidents are captured within the Guidelines.
Part 2 – Environment Plans		
Division 1 – Requirement for EP		
Regulation 7 – Activity must comply with approved EP		
11	There is some concern as to (2) which allows an operator to void liability for breaching the terms of an EMP if they have the written consent of the Minister to do so. This written consent should also be made available to the public as soon as possible through the same distribution channels as the original proposed summary document. There are issues of accountability if such information is not being made available to the public and is kept between the Minister and operator.	Any change that is considered significant to an EP post approval will require the submission of an updated EP summary to reflect the changes and this will be made publicly available as per Regulation 11(7).

Summary of comments and DMP responses from public consultation for new environment regulations

Comment	Issue	DMP Response
	Regulation 8 – Activity must not continue if new or increased environmental impact or environmental risk identified	
12	The AS/NZS definitions for risk have been superseded- see ISO 31000:2009.	Agree. This has been included in the updated Guidelines.
13	Offsets are not part of the formal conditions approved under the Mining Act. They are decided apart from and often after the approval process, which does not include review by the [State Govt agency].	This comment does not relate to petroleum activity.
14	“Adverse” should be added, as positive impacts would not require the operation to cease.	This regulation has been interpreted to only refer to adverse impacts.
	Division 2 – Approval for EP	
	Regulation 9 – Activity must not continue if new or increased environmental impact or environmental risk identified	
15	(3)(b) outlines what is involved in submitting an EP to the Minister, allowing them to “relate to a specified activity in one or more identified locations specified in the plan”. This potentially opens the door for signing off on a single well design for a number of wells. This is only appropriate if the geology is identical in all instances where the wells might be drilled and subject to hydraulic fracturing.	This comment is referring to the submission of generic EP’s. Generic EP’s need to describe all possible activities proposed within a specified geographic range and timeframe and outline management/mitigation measures for the highest possible sources of risks and their impacts associated with the proposed activities. It is important to note that a Generic EP is not a standalone document. Specific details of each proposed activity must be provided in the form of a Bridging Document and accepted before the activity can take place. Well design is beyond the scope of the Petroleum Environment Regulations.
16	It is preferable for the project not to be reviewed in stages as this may not allow proper assessment of the total or cumulative impacts of the project. However, if an EP is submitted in stages, the operator should only be able to undertake the activity outlined in the stages of the project approval. The operator should not be allowed to undertake activities of the project stages that have yet to be approved by the Minister in an EP.	As above.
	Regulation 10 – Time limit for approving or not approving EP	
17	DMP should consider adopting the same time limits that currently apply to safety case approvals in order to provide consistency across both requirements.	The time limit is 30 days to ensure consistency with the Commonwealth Regulations.
18	[Petroleum company] notes that regulation 10 (for all sets of Regulations) is to be determined, although the Guidelines reference the Commonwealth arrangements. [Petroleum company] submits that the Commonwealth time limits are appropriate and would welcome consistency with those provisions.	The Regulations have been amended to provide for a 30 day time limit.

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19	The time limits for approving an EP for all sets of Regulations is yet to be determined, although the advice provided in the Guidelines (2.2.3) suggests that consistency will be sought with the existing offshore regime. [Petroleum representative body] supports the use of these timeframes.	The Regulations have been amended to provide for a 30 day time limit.
Regulation 11 - Approval of EP		
20	<p>My interpretation of the Regulations is that the summary submission and summary approval process set out in regulation 11 is adjunct to the environment plan approval. Which means, all other approvals being in place, an activity can commence as soon as the Minister's approval of the environment plan is received.</p> <p>This being the casing, it would alleviate any ambiguity or uncertainty if it was clearly stated by adding a subregulation (11) to regulation 11.</p>	A petroleum activity can commence as soon as the Department (on behalf of the Minister) has provided written consent. Operators are not constrained from commencing activities until the EP Summary has been submitted/approved; however it is a requirement under the Regulations that this be submitted within 10 days from the date of approval of the EP.
21	<p>To avoid doubt, an operator may commence an activity prior to the Minister receiving or approving the summary required to be submitted under sub-regulation (7).</p> <p>I sincerely hope this is the intention of the regulation because there are occasions when the shortest possible time is required for an environmental approval in order to avoid costly standby time on rigs and seismic vessels as [Petroleum company] can testify. If it is not the intention of the regulation then this part of regulation 11 requires redrafting.</p>	As above.
22	Would like clarification regarding sub sects (7) and (8) which require preparation of a summary of the plan for public disclosure. Is it intended to make these summaries available through DMP or will pipeline operators and licensees be required to host these on their public websites. While [Petroleum company] are supportive of public disclosure, our website at present is not designed to host this sort of information and may require some re-design or amendment.	EP Summary's will be made publicly available on the DMP website. This is not the responsibility of the operator.
23	I note that the summary document is intended to address the concerns regarding public access to information. I am pleased to see an attempt to ensure that the public has an understanding of what has been approved and the conditions associated with that approval. I believe that that the publicly available documents should contain the complete environmental risk assessment and implementation strategy rather than a summary of these documents.	This will not be addressed in the Regulations however DMP is currently reviewing its transparency policy. The purpose of an EP summary is to provide a summary only of the activity proposed and environmental considerations while the full risk assessment and implementation strategy in the EP is assessed by the DMP. Notwithstanding, the DMP is encouraging operators to make the approved EP publicly available on their website.

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24	<p>In addition to the information currently identified, there is further information that I believe should be available to the public prior and throughout the duration and shut-down of the project that is not addressed in this section or elsewhere in these Regulations. I would like to add that work should not start until such time as this information is available to the public.</p> <p>This includes:</p> <ul style="list-style-type: none"> • Baseline environmental data collected as part of the description of the existing environment, including information regarding ground and surface water quality and levels • Geological data related specifically to stress fields • Fault-modelling • All environmental monitoring data (including groundwater quality and levels) collected as per the implementation of the EMP and throughout the lifespan of the project. • Any reportable or recordable incidents that occur throughout the lifespan of the project • Any time the Minister withdraws approval of an EMP and the grounds for that withdrawal • Anytime the Minister refuses a revision of an EMP and the grounds for that refusal. 	<p>This information is collected on a case by case basis. DMP is strengthening transparency and community engagement policies and practices.</p>
25	<p>(1)(b) compels the Minister to accept the EMP if the environmental risk is kept to “as low as reasonably practicable” (ALARP). Additionally, reg (1)(a)(d)(e) & (f) call for “appropriate” nature and scale of the activity; environmental performance objectives; implementation and monitoring arrangements; and consultation.</p>	<p>DMP has developed the Regulations to be objective based rather than prescriptive. This allows for continual improvement in environmental performance and assessments to be undertaken on a case by case basis.</p>
26	<p>Of concern is that there is no indication of how the determination of what is reasonably practical, appropriate or acceptable will be made. A related concern is that such a determination would be made without guidance from the regulation.</p>	<p>This is achieved through the environmental risk assessment process which is included in the EP. Assessment is undertaken on a case by case basis to determine what is considered reasonably practicable, appropriate or acceptable.</p>
27	<p>Given the cumulative effect of undefined “reasonable” and “appropriate” in the Regulations, we can expect to see conflicting understandings of what is meant by these terms, especially from affected local community groups, who may have a vastly different understanding of what significant risk and appropriate mitigation measures would entail.</p>	<p>The words “reasonable” and “appropriate” have been used to ensure consistency with Commonwealth Regulations.</p>
28	<p>(4) allows the Minister to approve the EMP only in part or subject to limitations. This may create a loophole whereby a plan which is largely environmentally risky can still be undertaken with only slight modifications</p>	<p>This regulation does not remove the need for an operator to meet criteria and undertake an environmental risk assessment and ensure that all potential environmental impacts are managed to ALARP. An operator is only permitted to undertake the activities specified in the approved EP.</p>

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29	[Petroleum representative body] supports the publication of EP summaries and proposes a dialogue between the industry and State and Commonwealth governments regarding the potential route to further transparency.	Noted.
30	In determining the environmental impacts and risks, the operator should, where they exist, use the relevant Australian Standards or other accepted standards or Guidelines where Australian Standards do not exist. Similarly, where Standards exist these should be used to determine the environmental performance objectives and measurement criteria. In Aust and NZ, corporate environmental managers and regulators have preferred modern ISO140001 series standards. Although these standards have the drawback that “continuous improvement” in environmental performance is not actually enforceable as a regulatory matter, the process can be followed when preparing and EP that is to be subject to regular (every five years) review	Operators are required to comply with Australian Standards and align with industry best practice where there are no standards set.
31	1(d) should be in accordance with DMP requirements and accepted standards	This is addressed during the assessment process and all proposals are to meet DMP requirements (ie Australian standards and industry best practice).
32	1(e) should include contingency plans.	As per Regulation 15(9), an implementation strategy must include an oil spill contingency plan.
33	4(c) should also include the need for the development of contingency plans for managing adverse impacts other than oil spillage, such as contamination from fracking fluids and breaching of aquifer integrity, well contamination etc. It is preferable for the EP to include an OSCP rather than the OSCP as a separate document that is approved outside the EP process.	DMP has received legal advice that this is not appropriate for the OSCP to be renamed to Spill Contingency Plan (SCP) in the Regulations; however, spills of substances other than oil will be considered in the Guidelines and is expected to be included in the EP. Any risk identified in the risk assessment component of the EP, is addressed in the implementation strategy. This includes identification of mitigation and management measures relevant to any potential spills identified in the risk assessment for that activity.
34	8(c) the general description of the existing environment should include a description of the water resources.	Water resources are determined to fall within the description of the existing environment, ie natural and physical resources.
35	8(d) add contingency plans	Mitigation and management measures associated with potential spills will be included in the EP summary as required by Regulation 11(8).
Regulation 12 – Approval of Oil Spill Contingency Plan submitted in accordance with condition imposed by Minister		
36	Many of the pipelines operated under the requirements of the PPA 69 transport substances other than “oil” and [Petroleum company] would like to suggest that DMP considers using the term “hydrocarbon” so as to include both oil and gas. As an operator of natural gas pipelines, [Petroleum company] already have spill plans in place for gas, odorant, and other chemicals and would hope that these could be submitted in accordance with r12 and r15(8) if required	DMP has received legal advice that this is not appropriate for the OSCP to be renamed to Spill Contingency Plan (SCP) in the Regulations; however, spills of substances other than oil will be considered in the Guidelines and is expected to be included in the EP.

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37	<p>There is some focus to the prevention, reporting and remediation of liquid spills but does not appear to devote the same focus to gaseous emissions. In the context of oil; production, a loss of hydrocarbon containment is extremely visible and tangible, and could result in substantial environmental pollution. Oil spills easily make alarming news items due to their devastating impact on flora and fauna, lands and waterways. In the context of gas production, a loss of hydrocarbon containment is likely to be substantially less visible as hydrocarbon gas is generally colourless and usually odourless and can be difficult to detect particularly if leaking at small rates. However the cumulative environmental impact of long-term undetected gas leaks could be significant, particularly as the greenhouse potential of methane is approximately 16 times more than CO₂. Regulation 12 and 13 appear to devote some attention to prevention, reporting and remediation of liquid spills but do not appear to devote the same focus to gaseous emissions. With greater focus on unconventional gas into the future, individual gas flow rates from production wells are likely to be considerably lower than that from conventional wells. Detection of gaseous leaks becomes more difficult at lower flow rates due to:</p> <ul style="list-style-type: none"> • lower flow velocity leading to low noise, making acoustic leak detection difficult, • pressures in the reticulation system (upstream of any compression) may be quite low, with low associated differential pressure drops in the network, making leak detection by differential pressure methods more difficult., • concentrations detected by airborne sensors (“gas sniffers”) potentially being quite low and raising the threshold of detection by this method. <p>The Regulations should be amended to address the specific issues of air and water contamination which arise from unconventional gas production to make the legislation suitable robust for dealing with petroleum operations other than oil.</p>	<p>Some of these questions has been addressed below where relevant to Petroleum Environment Regulations. Those outside the scope of the Regulations have not been addressed.</p> <p>DMP has developed the Regulations to be objective based rather than prescriptive. This allows for continual improvement in environmental performance and assessments to be undertaken on a case by case basis.</p> <p>Any risk identified in the risk assessment component of the EP, is addressed in the implementation strategy. This includes identification of mitigation and management measures relevant to any spills or contamination events identified in the risk assessment for that activity.</p>
38	It is preferable for an OSCP to be part of the EP approval process rather than a separate process	An OSCP is required as part of the implementation strategy associated with a petroleum proposal. It is the decision of the operator to submit this as part of the EP or as an individual document. Regardless of this, the document or documents will be assessed by DMP.
Division 3 – Contents of EP		
Regulation 13 – Contents of EP		
39	Same as Comment #37	

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Comment	Issue	DMP Response
	Regulation 14 – Environmental assessment	
40	In (5) When considering risks to public health, reference should be made to appropriate Guidelines for drinking water and groundwater, ambient air, and soils.	It is the responsibility of the operator to ensure that all appropriate guidance material is referenced in the EP submitted to DMP.
41	For certain materials used in the hydraulic fracturing process, there are no Health Guidelines. Consideration of NICNAS review of fracking chemicals is needed.	NICNAS are currently assessing a list of chemicals used in the unconventional gas industry and will present their findings in due course.
42	R 14 sets out the requirements for what must be included in the Environment Assessment (EA). Although it is a comprehensive process, it must be ensured that the information contained is made available to all relevant people, and must satisfy the requirements for Public Information (refer comments for r11) as issues of transparency could arise if the complete document is held by the operator with a nominal summary made available to the public in accordance with r11(7).	This will not be addressed in the Regulations; however DMP is currently reviewing its transparency policy and encouraging operators to make the approved EP publicly available on their website.
43	(2)(b) calls for details of any particular relevant values and sensitivities (If any) of that environment which, according to the s3.5 of the Guidelines, includes any relevant cultural, social and economic aspects of the environment that may be affected. Some consideration must be given to who is determining the values and sensitivities of a site. Some action should be taken to ensure that Aboriginal connection to the land is recognised and protected.	Prior to the grant of petroleum titles the application must first be referred to the relevant future act provision of the <i>Native Title Act 1993 (Cth)</i> . Through this process, agreement is reached on the methodology for the preservation and protection of Aboriginal cultural heritage sites in accordance with the <i>Aboriginal Heritage Act 1972</i> . Social and cultural values may also be identified through stakeholder and community consultation, prior to preparing an EP. Adequate consultation is of particular importance for proposals in sensitive areas or those that are associated with other uses and values.
44	(5)(a)(b)(c) &(d), require the operator to come up with performance objectives, standards and measurement criteria and requirements regarding the process, equipment to be used and actions to be taken in order to minimise the environmental impacts and risks associated with the activity and to assess how well that is being achieved. There are a number of Australian Standards referred to in the Guidelines that should properly be in Regulations that would address the concerns about the operator to determining their own levels and categories of risk.	This will not be addressed in the Regulations; however will be addressed in the Guidelines which can be updated as standards change. It is the responsibility of the operator to identify in the EP standards relevant to the proposed activity.
45	(6) for all sets of Regulations requires EPs to describe the requirements that “apply to the activity under legislation..., international codes and agreements...”.	Australia is a signatory to various international agreements that have aspects of environmental protection. Operators are expected to identify in the EP, and comply with the relevant requirements of each agreement.
46	(1)(c) - Project timelines facilitate project planning, provide direction to regulators and assist with understanding cumulative impacts of activities and also enable service providers to anticipate likely business activity. These timelines can be fluid and subject to external factors, although it is noted that regulators in WA have worked to provide certainty to the regulation of onshore gas projects	Noted.

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47	(1)(c) & (d) - In 2011, APPEA released the WA Onshore Gas Code of Practice (below) which commits the industry to a framework of established operating principles and leading practices including in relation to chemicals disclosure.	Noted.
48	<p>Extract from APPEA's "Western Australian Gas Code of Practice for Hydraulic Fracturing"</p> <p>Guideline 4 - Use of Chemicals in Hydraulic Fracturing</p> <p>The aim of this guideline is to minimise the use of chemicals in hydraulic fracturing operations, provide clear and accurate information on any chemicals that may be used, and promote the safe and responsible use of chemicals.</p> <p>It is noted that these Regulations have been developed in part in response to the Independent Review, which recommended full disclosure of hydraulic fracturing chemicals. [Petroleum industry representative body] supports disclosure of chemicals used in hydraulic fracturing fluids in a transparent way. This can be best achieved through an approach that seeks to clarify the rules that govern disclosure and protects proprietary information while also implementing measures to better inform the public.</p> <p>Clarity of disclosure practices could be achieved through the development of a regulatory disclosure protocol and [Petroleum industry representative body] is keen to work with DMP to translate learnings from other "best practice" jurisdictions and recent reports to WA.</p> <p>It is understood that these protocols are used in other jurisdictions where disclosure is required.</p> <p>[Petroleum industry representative body] believes that public confidence in the process of hydraulic fracturing would be significantly improved by the use of a website to facilitate disclosure.</p>	The requirement for disclosure of chemicals and other substances is included in the PGERA and PSLA Regulations, with further details included in the Guidelines. Disclosure of chemicals and other substances will be made via EPs and Summary EPs. DMP will provide Summary EPs on its website. DMP is encouraging operators to display their approved EP's on their websites.
49	2(a) the description of the existing environment should include ecosystems, aquifers and watercourses.	'Natural and physical resources' are included in the definition of 'environment' in the Regulations.
50	3(a) the "environmental impacts" should be amended to "potential environmental impacts".	DMP has received legal advice that "all" environment impacts would include any "potential" impacts.
51	3(c) the environmental risk process should follow existing standards and Guidelines where these exist.	Agreed. Risk standards are identified in the Guidelines.
52	5(a)(i) processes, policies and practices that should be followed should be specified by DMP where possible and where not possible, guidance provided.	Examples will be provided in the Guidelines; however, it is the responsibility of the operator to identify processes, policies and practices that are relevant to the proposed activity.

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Regulation 15 – Implementation Strategy for EP		
53	The draft PGER (Env) Regulations 2011 proposed permissible hydrocarbon concentration limits in PFW prior to re-injection into Hydrocarbon reservoirs. The target formation contains hydrocarbons and setting a limit on hydrocarbon concentration in the re-injected PFW will not deliver an environmental benefit. [Petroleum company]'s <i>Environment Protection Act 1986</i> (Pollution Prevention) Licence requires it to conduct integrity tests of re-injection wells every 3 years. This requirement delivers an environmental benefit by ensuring that groundwater aquifers are protected.	DMP notes that the terms injection and reinjection are used interchangeably across industry. This regulation has been developed to capture the injection/reinjection of Produced Formation Water (PFW) in locations other than the extraction point. Maximum permissible hydrocarbon concentrations will not be restricted for PFW that is reinjected into the extraction point. A limit will however need to be specified in the EP as per Regulation 15(8).
54	In (10), Short-term and long-term need to be defined.	These parameters are assessed on a case by case basis, as they can be different for various activities.
55	(8) requires the operator specify the “Maximum permissible concentration of petroleum” in produced water. The Guidelines set a maximum oil-in-water concentration of 30mg/L, which appears to be unchanged from previous regulation. I request that an absolute limit be defined at (8) and that fines be imposed for exceeding this concentration with prior written permission from the Minister. Additionally, (8) is referenced in regulation 33 (1)(b) but absolute concentration is still not defined.	These limits are determined on a case by case basis, depending on the type of activity.
Regulation 16 – Monitoring, recording and reporting arrangements		
56	DMP should undertake a review of the reporting requirements of Regulations 16, 30, and 33. Under the draft Regulations, operators or licensees will be providing monthly reports for regulation 30, three monthly reports for regulation 33 and annual reports for regulation 16 and it is likely that many of these reports will include similar information. It is important that any review look to avoid duplication of information and ensure that any reporting requirements are efficient for both operators/licensees and DMP. Further, underground gas pipelines present very low environmental impact during operation and reporting should reflect this.	The purpose of the Regulations is to introduce a robust environmental regulatory regime to WA. Routine reporting is required to ensure the environmental performance objectives and standards of the EP are being actively monitored and complied with.
Regulation 17 – Other information in EP		
57	AS/NZS 4360 has been superseded by ISO 31000	This is addressed in the Guidelines.
58	In (2) an incident is reportable if it provides a risk which is “moderate or more serious than moderate” but moderate is not defined in the Regulations. Once again vital information has been left to the Guidelines, assuming that the Australian Standards on risk management are followed. The practical if not legal implication is that this judgment is principally to be made by the operators, who clearly have a significant conflict of interest in this regard	A moderate level risk is defined by the operator in the risk assessment of the EP in accordance with Australian risk standards and assessed by DMP.

Summary of comments and DMP responses from public consultation for new environment regulations

Comment	Issue	DMP Response
59	(1)(a) requires the EMP to include a statement of the operator's corporate environmental policy which, according to section 3.2.3 in the Guidelines, requires a concise statement of the commitment to protect the environment during offshore petroleum activities and a commitment to reduce environmental risks to ALARP. Once again the Guideline must be adjusted to reflect the reality of an expanding onshore gas and petroleum industry. Corporate responsibility is often a weak form of environmental protection and when coupled with ambiguity present in the rest of the legislation could undermine the strength of the Regulations.	Inclusion of an environmental policy in the EP demonstrates a company's commitment to the environment. Environmental commitments are specific to the activity and addressed within the environmental assessment and implementation strategy components of the EP.
Division 4 – Revision of EP		
Regulation 18 – Revision because of a change, or proposed change, of circumstances or activity.		
60	Regulation 18 uses the word “significant” 7 times regarding the revision of an EP, yet at no stage is it defined. Additionally, there is an assumption that the operator will assess the relevance of the existing Environmental Risk Assessment of a new or changed EP and report on it to the Minister. In order for this to be an effective monitoring tool, the requirement to reassess the ERA should be explicitly stated in these Regulations.	The objective based Regulations allow for a case by case assessment and determination of significance and this is consistent with Commonwealth legislation.
61	Consideration should be given to including a provision stating the consequences to the operator if they do not comply with the Minister's request to review the EP within the required timeframe	Agreed, new penalty provisions added at 18(1) and (2).
Regulation 19 – Revision on request by Minister		
62	Consideration should be given to including a provision stating the consequences to the operator if they do not comply with the Minister's request to review the EP within the required timeframe	Agreed. New penalty provisions added.
Regulation 20 – Revision every 5 years		
63	R 20 requires that the revision of the EMP occurs every 5 years. This is not sufficient as technology, environmental and social changes could occur within that time, especially in areas of unconventional gas development, that could see a vastly changed social and environmental landscape in that timeframe. For example, on the Barnett Shale in the USA, exponential growth in the unconventional gas industry between 2001 and 2006 saw the number of production wells grow from just over 1000 to well over 4000. The potential exists for similar dramatic changes in WA. I suggest that the time required for revision of the EMP should be reduced and at a minimum match the requirements for the oil spill contingency provisions which take place every two years and 6 months. The revision must include a review of the currency and appropriateness of the Environmental Risk Assessment.	The requirement for a revision every five years is consistent with Commonwealth legislation. All proponents must notify the Department and seek approval for any changes to an existing EMP at any time. It is the operators responsibility to ensure current best practice is applied to all activities and approval is sought prior to any changes taking place.

Summary of comments and DMP responses from public consultation for new environment regulations

Comment	Issue	DMP Response
Regulation 23 – Additional requirement for revision of oil spill contingency plan		
64	[Petroleum company] notes that revisions of OSCP's are required every 2.5 years although they will sit as part of the overall EP's which are to be revised every 5 years. [Petroleum company] is keen to understand how this will work in practice, and submits that the interim revision of an OSCP may be unnecessary given that provision is also made for " <i>revision of environment plans due to change or proposed change or circumstance or petroleum activity</i> " (r18)	It is the discretion of the operator to decide if they include the OSCP in the implementation strategy of the EP or submit as a separate document. DMP recommends if the submission is to be part of the EP, this be submitted in the form of an appendix that can be updated separately to the EP. This information will be captured in the Guidelines.
65	[Petroleum industry representative body] notes that proposed revisions to an OSCP are likely unnecessary, on the basis that any changes would likely qualify under r18 as a change in circumstance or petroleum activity. It is therefore suggested that there should be consistency between proposed revision timetables for OSCP's and EP's	DMP consider the review of an OSCP necessary to be undertaken more frequently than an EP as new technology and equipment and improved knowledge may impact on the decisions employed when responding to a spill. The 2.5 yearly review ensures current contingency planning will be applied.
Division 5 – Withdrawal of approval of EP		
Regulation 26 – Steps to be taken before withdrawal of approval.		
66	(4) requires that the Minister can give a copy of the withdrawal of the approval to whomever the Minister sees fit. I request that this information be made public, in order to make the process more accountable.	DMP is strengthening transparency and community engagement policies and practices.
Part 3 – Incidents, reports and records		
Regulation 28 – Notifying reportable incidents		
67	[State Government agency] can assist with reviewing public health incidents	These Regulations are approached from an environmental perspective.
68	The regulation makes use of the phrase "reasonable excuse". However, there is no definition or guidance as to what is reasonable. An external benchmark for document storage and retrieval exists in AS/NZS ISO 517:2004 and the Regulations should make use of the standards	This is consistent with Commonwealth legislation and assessed on a case by case basis.
Regulation 29 – Written report of reportable incidents		
69	Same as Comment #66	
70	Same as Comment #67 (3)(b) and (4)(b)(i) calls for reasonable enquiry.	

Summary of comments and DMP responses from public consultation for new environment regulations

Comment	Issue	DMP Response
Regulation 30 – Written report of recordable incidents		
71	We are currently required to complete monthly reports for DMP on the labour hours on each pipeline licence and details of any significant OSH incidents. DMP should consider the monthly form to include both environmental incidents as well as OSH incidents (as) this would facilitate compliance with the reporting requirements of this regulation and streamline the reporting process	It is the decision of the operator as to how the required information is submitted to DMP and to ensure that the relevant information is provided within the required reporting timeframes. If a combined monthly report containing environmental incidents and OSH incidents is submitted, the combined report will need to be submitted to both environment and safety branches of DMP.
72	DMP should undertake a review of the reporting requirements of r16, r30, and r33. Under the draft regs, operators or licensees will be providing monthly reports for r30, three monthly reports for r33 and annual reports for r16 and it is likely that many of these reports will include similar information. It is important that any review look to avoid duplication of information and ensure that any reporting requirements are efficient for both operators/licensees and DMP. Further, underground gas pipelines present very low environmental impact during operation and reporting should reflect this	The purpose of the Regulations is to introduce a robust environmental regulatory regime to WA. Routine reporting is required to ensure the environmental performance objectives and standards of the EP are being actively monitored and complied with.
73	(2) makes use of the phrase “reasonable excuse”. However, there is no definition or guidance as to what is reasonable. An external benchmark for document storage and retrieval exists in AS/NZS ISO 517:2004 and the Regulations should make use of the standards	It is the decision of the operator as to how to keep records stored for easy access in case of any emergency or requirement to produce documentation as requested.
Part 4 – Environmental requirements		
Division 1 – Requirements relating to emissions and discharges		
Regulation 33 - Discharge, injection or re-injection of produced formation water resulting from activity		
74	DMP should undertake a review of the reporting requirements of r16, r30, and r33. Under the draft regs, operators or licensees will be providing monthly reports for r30, three monthly reports for r33 and annual reports for r16 and it is likely that many of these reports will include similar information. It is important that any review look to avoid duplication of information and ensure that any reporting requirements are efficient for both operators/licensees and DMP. Further, underground gas pipelines present very low environmental impact during operation and reporting should reflect this.	The purpose of the Regulations is to introduce a robust environmental regulatory regime to WA. Routine reporting is required to ensure the environmental performance objectives and standards of the EP are actively monitoring and complied with.
75	Along the same lines as for r11, (3)(a) &(b) allows the Minister to allow the operator to exceed the maximum concentration of hydrocarbons in produced water. Should the Minister determine that an exception can be made, this decision and basis for the decision should also be made public.	DMP is currently reviewing its transparency policy.

Summary of comments and DMP responses from public consultation for new environment regulations

Comment	Issue	DMP Response
76	(4) allows the Minister to authorise increased periods of discharge in the event that it has the potential to improve environmental performance. There is little or no guidance on what it takes to “improve environmental performance”. This could be more explicitly stated as decreasing the environmental risk of the project or lowering the total environmental risk of the project.	This will be assessed by DMP on a case by case basis. It is the responsibility of the operator to provide justification as to why increased discharge is required and the outcome of undertaking this discharge to improve environmental performance.
77	This reg appears to have the presumably unintended consequence of providing room for operators to request to increase their rate of production without sufficient environmental protection measures being in place.	As above.
78	The title of this section should relate to produced water and fracking fluids. This section should also cover issues such as injection levels, protection of aquifers, and management of produced water discharged at the surface. A subsection should be added requiring that the disposal of the produced water must be environmentally acceptable.	Produced Formation Water (PFW) specifically refers to water extracted from hydrocarbon reservoirs. Regulation 33 addresses the oil in water content of PFW. The recovery of all other fluids is managed on a case by case basis and is addressed in the EP assessment process.
79	It is noted that reference to injection and re-injection has been removed from the PSL Regs. However, it is understood that fracking is undertaken offshore and these references should be included in the PSL Regs.	Regulations have been amended to incorporate injection and re-injection activities.
Regulation 34 – Monitoring and reporting on emissions and discharges		
80	(8) makes use of the phrase “reasonable excuse”. However, there is no definition or guidance as to what is reasonable. An external benchmark for document storage and retrieval exists in AS/NZS ISO 517:2004 and the Regulations should make use of the standards.	The relevant standards will be referred to in the Guidelines as these can be updated as standards change.
81	[Petroleum company] has a number of concerns with this regulation which represents a departure from the Commonwealth Regulations. Firstly, the Regulation sets up a reporting period of three months. Under sub-reg (7) and (9), an operator must submit a written report of emissions and discharges for each three month period for which an EP is in place. Usually, this information would be aggregated into an annual report, and [Petroleum company] submits that an increase to quarterly reporting would increase the administrative burden on the DMP and operators significantly. [Petroleum company] recommends amendment of the reporting requirements to be for submission annually.	The purpose of the Regulations is to introduce a robust environmental regulatory regime to WA. Routine reporting is required to ensure the environmental performance objectives and standards of the EP are being met.

Summary of comments and DMP responses from public consultation for new environment regulations

Comment	Issue	DMP Response
82	Under sub-reg (2), the operator is required to monitor “...all emissions and discharges to any land, air, marine, sea-bed, sub-seabed, groundwater, sub-surface or inland waters environment that [occur in the course of the activity]” and under sub-reg (4) to conduct tests of the monitoring equipment used. In [Petroleum company] view, the requirement is very broad, capturing emissions/discharges that are not readily or typically monitored, often due to the short term nature of some activities, eg vessel movements. Monitoring requirements should reflect the key environmental emissions/discharges or risks to the environment.	Noted. Clarity on this regulation will be included within the Guidelines.
83	These sub-regs would appear to duplicate requirements for licensed premises under Part V of the <i>Environmental Protection Act 1986</i> .	The purpose of the Regulations is to introduce a robust environmental regulatory regime to WA. Routine reporting is required to ensure the environmental performance objectives and standards of the EP are being met.
84	(7) It is noted that a strengthened reporting regime is likely to be introduced through the new Regulations and [Petroleum industry representative body] supports steps to ensure that this remains consistent with existing offshore requirements. In particular, the frequency of reporting required under (34)(7) appears to be above a level that will deliver additional value, especially when the resources required to prepare and assess these reports respectively by industry and DMP is taken into account.	The purpose of sub-Regulations 34(7) is to enable DMP to check that proponents are complying with the environmental performance objectives and standards contained within an EP.
85	Any monitoring requirements should be specific, risk-based and take into consideration the likely environmental impact of an activity. There are many activities associated with a project for which monitoring is unlikely to deliver significant benefits due to their low impact. Eg: vessel or vehicle movements. The requirements would therefore be better targeted at activities with emission or discharge levels that have been identified as requiring monitoring.	The purpose of sub-Regulations 34(7) is to enable DMP to check that proponents are complying with the environmental performance objectives and standards contained within an EP.
Division 2 – Requirement relating to oil spills		
Regulation 35 – Application of chemical dispersant to oil spills		
86	Consideration should be given to including requirements for the cleaning up of contamination resulting from the spillage of chemicals.	Any risk identified in the risk assessment component of the EP, is addressed in the implementation strategy. This includes identification of mitigation and management measures relevant to any potential spills identified in the risk assessment for that activity. The spill contingency plan will provide response procedures for any potential spills identified.

Summary of comments and DMP responses from public consultation for new environment regulations

Comment	Issue	DMP Response
	Part 5 – Operators of activities	
	Regulation 38 – Operator to give details	
87	(2) makes use of the phrase “reasonable excuse”. However, there is no definition or guidance as to what is reasonable. An external benchmark for document storage and retrieval exists in AS/NZS ISO 517:2004 and the Regulations should make use of the standards.	Relevant standards will be referred to in the Guidelines as these can be updated as standards change.
	Part 6 – Transitional provisions	
	Regulation 43 – Environmental management plans in force before commencement day	
88	Sub-reg (3) currently requires that any EMPs in place prior to the introduction of the Regulations will need to be revised within 12 months if they do not meet the requirements [Petroleum company] suggests that DMP considers amending this reg to adopt the approach taken by PP(MoSoPO) Regs 2011 which do not require the review of an Operator Safety Case until such time as the 5 yearly review is required or there is a significant change to the facilities.	The purpose of the Regulations is to introduce a robust environmental regulatory regime to WA. This includes revising EP’s to ensure they are consistent with the requirements of the Regulations.
	GENERAL COMMENTS	
	Penalty provisions	
89	Fines are referred to in this Reg as a deterrent to operators starting or continuing an activity without approval, or failing to modify an EP as requested by the Minister. The fines must be substantial enough to function as a genuine deterrent to both large and small companies. The current \$10,000 for failing to follow a direction is insufficient. Fine for undertaking work without an approved EP for the activity should be significantly higher and should be imposed for every breach in order to provide sufficient deterrence	Noted. The penalties in the Regulations are the maximum allowable under each respective Act. DMP is committed to continuous improvement which includes the suitability of penalties and offences regulated by DMP.

Summary of comments and DMP responses from public consultation for new environment regulations

Comment	Issue	DMP Response
90	<p>[Petroleum industry representative body] supports the introduction of a compliance framework for enforcing EPs for both offshore and onshore petroleum activities in WA. In this regard, it is important that a range of compliance measures are available so that a violation can be met with a proportionate response, with the objective of these measures being to encourage compliance by raising the cost of no-compliance above that of compliance. Compliance measures can also take the form of “economic instruments” which can have the added benefit of raising funds for activities associated with environment regulation. Although, it is important to note that these instruments are not just limited to fines, and can include, amongst other options, fees, tax incentives and subsidies. [Petroleum industry representative body] supports the introduction of legislation to provide a legal basis for compliance and a regulatory framework to enforce compliance. Clarification of the likely measures to be introduced would be beneficial as an ongoing absence of details will create uncertainty. [Petroleum industry representative body] also encourages DMP to consider a broad suite of measures as a means of encouraging compliance.</p>	Noted.
91	<p>[State Government agency] recognises the necessity to effectively regulate petroleum and geothermal activities in WA, including unconventional gas extraction and hydraulic fracturing (fracking). [State Government agency] supports the requirement for approval of an EP prior to commencement of a petroleum or geothermal project. However, given the significance of the State’s groundwater and surface water resources to its economic and social development, [State Government agency] has identified several areas where the draft Regulations and Guidelines can be clarified or strengthened and where water resource management issues can be better addressed</p>	Potential impacts on water resources are assessed in the EP risk assessment and implementation strategy on a case by case basis. Relevant departments will be consulted by the operator as per reg 17(1)(b), and where required DMP will also undertake consultation where further information is required.
92	<p>For example, consideration may be given to including provisions either in the draft Regulations or in the PSLA82 and the PGERA67 giving the Minister power to quarantine specific areas within a tenement from mining and energy development. This will ensure areas of State significance are protected from these developments. Such areas may include proclaimed Public Drinking Water Supply Areas (PDWSAs). Proposals where the risks to the water resources are considered to be “moderate” or “high” should be referred to the Minister for Water for comment. This is necessary where activity is near PDWSA’s constituted under the <i>Country Areas Water Supply Act 1947 of the Metropolitan Water Supply, Sewerage and Drainage Act 1909</i></p>	An MOU exists between DMP and the EPA and this includes referrals of activities with the potential to impact on public drinking water areas.

Summary of comments and DMP responses from public consultation for new environment regulations

Comment	Issue	DMP Response
93	<i>Also, where possible, the Guidelines should refer to the current risk management standard ISO 31000:2009. [State Government agency] is currently working with DMP to develop policy positions related to the protection and management of the water resources by onshore petroleum and geothermal activities. These policy positions may be included in the Guidelines or in a separate document supplementing the draft Guidelines for the development of EP's</i>	This has been amended in the Guidelines.
94	For the Pipeline Regs, [State Government agency] published Water Quality Protection Note WQPN83 "Infrastructure corridors near sensitive water resources" detailing the its position on this issue. [State Government agency] prefers that pipelines are located outside Public Drinking Water Supply Areas (PDWSA's). It has significant concerns if pipelines are constructed over Priority 1 PDWSA's and seeks to be consulted in cases where pipelines are located over any PDWSA.	An MOU exists between DMP and the EPA and this includes referrals of activities with the potential to impact on public drinking water areas.
95	[Petroleum company] is an active member of APPEA and subject to the comments made in this letter, fully supports APPEA's submission to DMP on the proposed legislation on behalf of the oil and gas industry.	Noted.
96	[Petroleum company] supports legislative initiatives that seek to increase transparency of information in order to protect people and the environment. With that in mind, it supports disclosure of chemical ingredients used in hydraulic fracturing fluids as long as related proprietary information is protected. We also support the public release of EP's as part of industry's efforts to remain accountable and transparent.	DMP is strengthening transparency and community engagement policies and practices.
97	In the US, Arkansas, Colorado, Texas and Wyoming now have statutes or Regulations that require public disclosure of hydraulic fracturing fluids. In addition to these state-mandated disclosure rules, [Petroleum company] supports the voluntary chemical disclosure website, FracFocus.org, and has begun uploading information to this website.	Noted.
98	This landmark web-based national registry, developed in the USA's Ground Water Protection Council (GWPC) and Interstate Oil and Gas Compact Commission (IOGCC) was launched recently to provide information about chemicals used in the hydraulic fracturing of oil and natural gas wells on a well-by-well basis.	Noted.
99	[Petroleum company] believes our industry can explore for shale gas safely and responsibly.	Noted.
100	In Australia, [Petroleum company] participates in the APPEA Onshore Working Group, which recently launched a Code of Practice, outlining the WA industry's commitment to responsible, accountable and transparent operations associated with the exploration and production of onshore gas.	Noted.

Summary of comments and DMP responses from public consultation for new environment regulations

Comment	Issue	DMP Response
	Standards of Risk Assessment and Management Plans	
101	The Guidelines associated with these Regulations point to Australian Standards AS/NZS 4360:2004 <i>Risk Management and AS/NZS ISO 14001:2004 Environmental Management Systems</i> and HB 203:2006 <i>Environmental Management - Principles and Process</i> as standards to be followed when developing the risk assessment. It would be appropriate for these standards (or their replacements) to be explicitly stated in the Regulations.	This will not be addressed in the Regulations; however will be addressed in the Guidelines as these can be updated as standards change. It is the responsibility of the operator to identify in the EP, standards relevant to the proposed activity.
102	As the status of reportable and recordable incidents depends on the consequences identified in the risk management plan, it is vital that all parties are operating from a similar understanding when identifying and assigning risk categories.	Consequence and likelihood categories are to be in accordance with Australian risk standards, and will be assessed by DMP.
103	Referring explicitly to the Standards also clarifies the criteria that the Minister will use to determine if the risk assessment meets the required standard. I expect that the Department will continue to work closely with industry to ensure that requirements are met, but specifically will provide a common starting point for both parties. This will likely be increasingly important as new staff continues to join the Department and the amount of onshore activity, particularly for unconventional gases, increases.	Noted.
104	The Department has a history of working well and cooperatively with industry. It is vitally important that the Regulations be robust enough to withstand any potential breakdown of that good relationship. The Regulations must be enforceable regardless of whether or not goodwill exists.	Noted.
	Discretion/Authority of the Minister	
105	Throughout the Regulations the Minister is given a great deal of discretion in decision-making and the level of discretion is deepened by the reliance on undefined values of “reasonable” and “appropriate” throughout the legislation.	This is consistent with Commonwealth legislation.
106	In and of itself, that is a concern, but concern is deepened as succession planning and retention of corporate knowledge was identified by the Hunter Report as a key issue facing the Department.	This is outside of the scope of the Regulations.
107	In short, the Regulations contain very high levels of ambiguity and Ministerial discretion. To function effectively, these Regulations rely on exceptionally high levels of technical expertise within the Department. Not only do the Regulations need to be strengthened, we need to be assured that Department's high level of expertise will be maintained into the future as staff depart through natural attrition.	DMP's petroleum processes are certified to ISO Standards. DMP staff are required to have relevant qualifications, undertake comprehensive training and all assessments are quality assured by senior management.

Summary of comments and DMP responses from public consultation for new environment regulations

Comment	Issue	DMP Response
	Technical Concerns	
108	The review of the draft Regulations has raised a number of technical concerns that are not addressed in the Regulations and may require a review of the <i>Schedule of Onshore Petroleum and Production Requirements 1991</i> . I list these concerns below. (NB: The concerns relate to drilling, resource management and reservoir management and, as such are not applicable to the Environment Regs)	Not applicable to the Regulations.

Summary of comments and DMP responses from public consultation for new 'Guidelines for preparation and submission of an Environment Plan'

Comment	Issue	DMP Response
	Part 1 – Introduction	
	1.1 – Purpose of Guidelines	
109	In their current form it appears that the Guidelines are only relevant to the draft PGER (Env) Regs 2011 and the PSL (Env) Regs 2011 but not to the Pipeline Regulations. Although the requirements of the Guidelines may be suitable for preparing EP's during the construction and or decommissioning phases of a natural gas pipeline, [Petroleum company] believe they are not consistent with the low impact nature of ongoing underground pipeline operations. In particular, the requirement for all EPs to include annual reporting to DMP is considered unsuitable for an EP put in place solely to allow ongoing operation of a gas pipeline. The majority of [Petroleum company] pipelines are underground and once operational have a negligible impact on the natural, cultural and socioeconomic aspects of the environment. In these circumstances, it is more appropriate to have an EP in place which requires the prompt reporting of any environmental incidents but should not include an annual reporting obligation throughout the life of the pipeline.	The purpose of the Regulations is to introduce a robust environmental regulatory regime to WA. Routine and annual reporting is required to ensure the environmental performance objectives and standards of the Environment Plan are being met. An Environment Plan is required for all petroleum activities including operating pipelines. The Environment Plan is to be relevant to the nature and scale of the activity whilst still meeting all legislative requirements.
	1.2.1 – WA petroleum legislation	
110	The term inland waters should be defined. Consideration should be given to using the definition of water course in the <i>Rights in Water and Irrigation Act 1914</i> to describe inland waters.	Terms are consistent with relevant Commonwealth Petroleum legislation. 'Natural and physical resources' are included in the definition of 'environment' in the Regulations.
	1.2.2 – The EP regime	
111	The Guidelines focus on risk minimisation referring to impact levels "as low as practicably possible". However, International environment law has adopted an approach based on "best available technology". Under this approach technology standards are emphasised rather than cost benefit analyses. Consideration may be given to adopting a similar approach in these regs. Should the "as low as reasonably practical" approach be retained, mechanisms should be implemented to ensure the impacts and the risks are acceptable to the regulator as there may be some cases where the adoption of the "as low as reasonably practical" approach may result in acceptable impacts or risks to the water resources.	The Environment Plan (EP) regime promotes and enforces the reduction of environmental risks and impacts of petroleum activities to a level which is as low as reasonably practicable (ALARP). This principle is consistent with Commonwealth petroleum legislation. It is important to note that what is considered practicable will evolve over time as technology and expertise improve. Operators must have a mechanism in place to monitor improvement in technology and practice, this is outlined in the Guidelines. Furthermore, petroleum proposals are assessed on a case by case basis and as such, any potential impacts to water resources are assessed individually. Petroleum proponents are required to demonstrate that the environmental sources of risk and consequent impacts arising from the proposal are identified and can be managed to avoid, reduce or mitigate environmental harm.

Summary of comments and DMP responses from public consultation for new 'Guidelines for preparation and submission of an Environment Plan'

Comment	Issue	DMP Response
	1.2.3 – Petroleum operator and activity	
112	The Guidelines give a definition of a petroleum activity under regulation 4, however, regulation 4 differs across all three sets of proposed Regulations.	Noted. Guidelines will be amended to reflect this.
113	Hydraulic fracturing should also include the injection of fluid underground. Add management/ remediation of any contamination to the list of activities included in petroleum activities.	Remediation of contamination is not a petroleum activity. This is a response action to an incident and will be addressed in the OSCP and/or other relevant documentation.
	1.2.4 – Summary of EP requirements	
114	Use of “as low as reasonably practical” is contrary to sensitive areas such as Priority 1 designated Public Drinking Water Supply Areas (PDWSA's) which are managed on risk avoidance principles rather than risk minimisation.. Confined areas utilised for drinking water purposes are considered as Priority 1 PDWSA's. To overcome this issue, it may be necessary for the Minister to have the powers to quarantine specific areas within a tenement from development. Environmental risks should include risks to aquifers and water resources. This can be included in the definition of environment.	An MOU exists between DMP and the EPA and this includes referrals of activities with the potential to impact on public drinking water areas.
	1.2.5 - Commonwealth EPBC Act and Sea Dumping Act	
115	The Guidelines do not contain information about requirements under the state <i>Environmental Protection Act 1986</i> (although the EP Act does appear in the list of applicable legislation on page 23). I would therefore suggest adding a section explaining EP Act requirements for proposals within WA State waters, including some explanation of the MOU for referral of proposals to the EPA under Part IV. It is my understanding that offshore production facilities in State waters are still subject to regulation under Part V of the EP Act. If so, it would be advantageous to also include some explanation of Part V requirements.	DMP is not the designated authority to regulate under the EP Act 1986. Reference to the EP Act will be made in the Guidelines regarding referrals.
	1.2.6 - International agreements and conventions	
116	As per comments made for regulation 14, the Guidelines state that “ <i>Australia is a signatory to various international agreements...Activities in State waters are expected to comply with the relevant requirements of each agreement</i> ”. The footnote to this statement notes that “ <i>If Australia is a signatory to international agreements or conventions then complementary Commonwealth, State and Territory legislation to regulate the matters prescribed will be in force</i> ”.	Australia is a signatory to various international agreements that have aspects of environmental protection. Operators are expected to identify in the EP and comply with the relevant requirements of each agreement.

Comment	Issue	DMP Response
117	As stated in the response for reg 14, if agreements are incorporated into Australian law by legislation, there should be no need to consider international agreements separately - rather operators should only need to consider applicable legislation. At the least, [Petroleum company] would consider it worthwhile to make it more explicit that it is only these agreements that are subject to incorporating legislation that should be referenced in an EP.	As above.
Part 2 – The EP submission and assessment process		
2.1 - Overview of the assessment process		
118	Same as Comment #114.	
2.2.1 – Preliminary information and consultation		
119	There is no avenue for health comments on any proposed mining plans.	This is outside the scope of Regulations and Guidelines.
120	Where there is impact on public health a review by health officials is advantageous	This is outside the scope of Regulations and Guidelines
121	Is the DMP satisfied that it has sufficient public health expertise in-house to adequately assess health aspects? Will the outcomes/conclusions of any such reviews be made available for review by other agencies and publicly?	This is outside the scope of Regulations and Guidelines.
122	[Petroleum industry representative body] notes that the time limits for approving an EP for all sets of Regulations (r10) is yet to be determined, although the advice provided in the Guidelines suggests that consistency will be sought with the existing offshore regime. [Petroleum industry representative body] supports the use of these timeframes	This has been amended in the Regulations.
123	Sensitive areas should be defined and specified rather in the Guidelines themselves or in a schedule attached to the Guidelines and be reviewed from time to time. Sensitive areas can include PDWSA's, other valuable groundwater and surface water resources, valuable Groundwater Dependant Ecosystems (GDE's), etc. [State Government agency] is willing to assist DMP in the development of policy positions/criteria for specifying sensitive areas related to water resources. [State Government agency] has published a Water Quality Protection Note WQPN 83"Protecting public drinking water source areas" that includes the water resources it considers as sensitive (in Appendix A of that note).	This is the operator's responsibility to identify any sensitive areas within the vicinity of the operational area.

Summary of comments and DMP responses from public consultation for new 'Guidelines for preparation and submission of an Environment Plan'

Comment	Issue	DMP Response
	2.2.2 – EP preparation and structure	
124	Studies should also be undertaken to determine the potential impacts surface water and groundwater resources, the existing users of those resources, aquifers, etc.	This is assessed on a case by case basis.
	2.2.3 – Timeframes for submission and assessment	
125	30 calendar days is a very short timeframe if relevant government input is required.	This is the timeframe on which DMP petroleum environment branch have been operating prior to the introduction of these Regulations. The Regulations allow for DMP to liaise with the operator on a new agreed timeframe.
126	The Minister may take more time than the 30 calendar days to respond to an EP. The additional time may be required especially as “the Minister may consult with other relevant government and non-government agencies on the content of an EP”.	As above.
127	Table 1 - the criteria that determine which category (ie: consequence and likelihood) a project falls into needs to be included. The risk matrix is highly subjective without this.	The operator develops a risk matrix appropriate to the specific activity, as defined in the Australian standards.
	2.3.3 – Definitions	
128	The risk matrix used is from an older standard and has been superseded.	The operator develops a risk matrix appropriate to the specific activity, as defined in the Australian standards.
	2.3.5 – Generic EP	
129	In proclaimed PDWSA's, the worst case scenario should include drinking source water contamination.	This would be addressed in the environmental assessment and implementation strategy components of the EP.
	2.4.2 – EP summary Guidelines	
130	The summary document should also outline the various standards used by the operator to identify and quantify the environmental risks. Include post closure management of operations, bore sealing, rehabilitation of the site and storage ponds.	Full details of the risk assessment are included in the EP, however will not be included in the EP summary as this is only an overall summary of the activity.
	Part 3 – Content and preparation of an EP	
	3.1 – Overview	
131	In Figure 2, the adaptive management principle should be adopted by including an arrow between monitoring and measuring with “review when required”.	Noted.

Comment	Issue	DMP Response
	3.3 – Environmental legislation and other requirements - Guidelines	
132	The <i>Convention on Wetlands of International Importance</i> is given the acronym “RAMSAR”. However it is my understanding that the correct title of this convention is the Ramsar Convention (as opposed to RAMSAR in capitals) because the name is not an acronym but refers to the city in Iran where the convention was signed.	Noted.
133	The following legislation should also be included: <ul style="list-style-type: none"> • <i>Country Areas Water Supply Act 1947</i> • Metropolitan Water Supply, <i>Sewerage and Drainage Act 1909</i> • <i>Waterways Conservation Act 1976</i> • <i>Rights in Waters and Irrigation Act 1914</i> 	The legislation list is not an exhaustive list, but only provides an example of relevant legislation. It is the operator’s responsibility to identify all relevant legislation to the proposed activity.
	3.4 – Description of the activity	
134	In sub-section 3.4.3, under “Operational Details”, there is no requirement for baseline testing.	Noted. This is assessed on a case by case basis.
135	Comparisons to baseline data to detail interactions of mining practices with pre-existing environmental status.	Petroleum not mining. Regulation 14(2)(a) requires a description of the existing environment that may be affected by the activity.
136	In sub-section 3.4.3, under “Location”, “Sensitive areas” should be shown on the map locating the proposed activity, refer to comments on section 2.2.1.	Noted. This will be addressed in the Guidelines.
	In sub-section 3.4.3, under “Operational Details”, Key elements in the interaction between the proposed activity and the environment should include surrounding land and water users. The Government’s position on use of chemicals need to be stated (ie must be non-toxic/Non-harmful to environment and human health). The expected extent of fractures generated by fracking should also be stated.	All information is assessed on a case by case basis.
137	Table 3 - Some of the examples included in this table refer to offshore activities. This may be relevant if some Guidelines are also used to regulate and manage offshore activities. However, more examples for onshore activities should be included. Need to be better/more specifically describe environmental aspects related to activities. Under seismic, should include earthquakes. Under drilling, should include aquifer protection.	Noted. Guidelines will be updated to reflect onshore activities and relevant aspects and impacts.

Summary of comments and DMP responses from public consultation for new 'Guidelines for preparation and submission of an Environment Plan'

Comment	Issue	DMP Response
	3.5 – Description of the environment	
138	There is no mention of farming or agricultural activities conflicting with mining activities.	Noted. This will be addressed in the Guidelines.
139	The settings of industrial boundaries for these mining practices have not been evaluated by any HRA process.	This is outside the scope of the Regulations.
140	There is no industrial boundary set by the EPA for hydraulic fracturing practices.	DMP cannot comment on behalf of the EPA.
141	In values and sensitivities, areas considered as sensitive environment includes mostly offshore examples. Instead more onshore examples should be added such as PDWSA's and other valuable groundwater or surface water resources.	Noted. Guidelines will be updated to reflect onshore activities and relevant aspects and impacts.
	3.6 - Environmental risk assessment	
142	The AS/NZS definitions for risk have been superseded- see ISO 31000:2009.	Noted. Will be amended.
143	Offsets are not part of the formal conditions approved under the Mining Act. They are decided apart from and often after the approval process, which does not include review by the [State Government agency].	Offsets are outside of scope of the Regulations.
144	In sub-section 3.6.1.1, under "Legislation" the Guidelines state that if there is a major change in risk, the operations may be required to cease. However, it does not state the process DMP will undertake to require a given operation to cease.	Addressed in the Regulations (Reg 7 activity must comply with an approved environment plan). Also note Reg 8.

Comment	Issue	DMP Response
145	<p>In Table 4, the environmental aspects appear to be operational aspects. Key issues of concern that were previously documented should be included in this table. The table describes mainly offshore fraccing activities and needs to also include onshore activities. For example:</p> <ul style="list-style-type: none"> • Drill fluids and drill cuttings - unacceptable changes to groundwater or surface water qualities should be added. • Drainage systems - unacceptable changes to groundwater or surface water qualities should be added. • Production/ separation systems - change impacts to contamination of land and surface waters. • Hydraulic fracturing should be added and Sources or risk - propagation of fractures - and Impacts - Impacts - breaching of aquifer seals, connection with existing fractures, seismic activity • Fraccing fluids should be added and Sources of risk - migration of fluids and gas from well/source - and Impacts - contamination of aquifers. Connected surface waters, potential impact on land/water users. 	Noted. Guidelines will be updated to reflect onshore activities and relevant aspects and impacts.
3.6.2 – Risk assessment of environmental impacts		
146	There is no requirement for establishing the pre-treatment risk levels in the EP.	Assessment is undertaken on residual risk, ie. after applying mitigation measures for the activity.
147	A lack of pre-existing water testing results prior to operations, compounded with the lack of comparisons and validation to define the extent of a spill or emission, prior to effecting any risk treatment does not allow for correct evaluation of the efficacy of the planned treatments.	Noted. This is assessed on a case by case basis.
3.7 - Performance objectives, standards and measurement criteria		
148	In Fig 4, the Regulations are included as standards. Add accepted water quality standards (eg: ANZECC). Dot points 2 & 3 don't appear to be criteria.	The Guidelines do not provide an exhaustive list, but only provides an example of relevant legislation and standards. It is the operator's responsibility to identify all relevant legislation and standards to the proposed activity.

Comment	Issue	DMP Response
	3.7.1 – Environmental performance objectives	
149	At 3.7.1.1, the Guidelines state that “It should be noted that a breach of a performance objective constitutes a recordable incident as defined at Reg 4 and must be reported to the Minister (monthly) as per reg 30. However, in the Regulations a recordable incident is defined as an incident arising from the petroleum activity that breaches a performance objective. That is, an incident must occur for a recordable incident to arise. A breach of a performance objective itself is not a recordable incident as stated in the definitions in the Guidelines, thus the Guidelines should be amended accordingly.	The Guidelines have been updated to reflect this comment.
	3.7.2 – Environmental performance standards	
150	In sub-section 3.7.2.3, under “Guidelines” the performance standards relate to how the objectives will be achieved rather than the quality of the performance.	Performance standards not only relate to how objectives will be achieved, but also the quality for the performance. Quality of performance is measured in routine reporting requirements as set in the Regulations.
	3.8 – Implementation strategy	
151	The implementation strategy should include some post-operation monitoring to ensure there is minimal risk of contamination of the water resources after operations cease.	This is addressed on a case by case basis.
152	In sub-section 3.8.1.3, under “Guidelines” should also include onshore examples related to gas activities. The Guidelines need to be more specific.	Noted. Guidelines will be updated to reflect onshore activities and relevant aspects and impacts.
	3.8.4 – monitoring, auditing, management of non-conformance and review	
153	Short-term and long-term need to be defined.	This is determined on a case by case basis and is influenced by the duration and other factors of the activity.
154	Pre-start and close-out internal environmental audits should be planned.	Internal and external audits are addressed in the EP.
155	Information from overseas operations indicates that the length of time for the environmental monitoring post close-out needs to be established in both the EP and in the IS documents.	Environmental monitoring post close-out is addressed in the EP and is discussed between DMP and the operator to ensure monitoring is relevant to the nature and scale of the activity. The Guidelines will be updated to reflect this.
156	In sub-section 3.8.4.3, under “Guidelines” the adaptive management approach described in paragraph 1 of Monitoring, auditing and review needs to be reflected in the diagram.	Reference is made to S3.8.4 in Figure 2 of the Guidelines.

Summary of comments and DMP responses from public consultation for new 'Guidelines for preparation and submission of an Environment Plan'

Comment	Issue	DMP Response
	3.8.5 – Emergency response (including Oil Spill Contingency Plan)	
157	Need to include contingency plans for managing adverse impacts, possibly in a separate section (eg: breach of aquifer seals, seismic activity, impacts on existing well - water quality and gas, escape of gas and chemicals to surface waters, fractures propagating beyond expected extent).	Any risk identified in the risk assessment component of the EP, is addressed in the implementation strategy. This includes identification of mitigation and management measures relevant to any potential risk events identified in the risk assessment for that activity.
	3.9 – Reporting	
158	In Table 7 - include more onshore requirements/ examples such as water quality results, water level pressure measurements. Also include reportable and recordable incidents specific to onshore gas and fracking.	Noted. Guidelines will be updated to reflect onshore activities and relevant aspects and impacts.
	3.9.1 – Routine reporting	
159	Short-term and long-term need to be defined.	These parameters are assessed on a case by case basis, as they can be different for various activities.
	3.9.2 – Incident reporting	
160	A table detailing a hierarchy of classification of reportable and recordable incidents would be useful.	Examples of recordable and reportable incidents are captured within the Guidelines.
	3.10 – Consultation	
161	AS/NZS 4360:2004 has been superseded by ISO 31000:2009	Noted. Guidelines will be updated to reflect the change.
	General comments in relation to the Guidelines	
162	Same as Comment #159.	
163	ISO 31000:2009 incorporates a wider context of Health outcomes in the review of Environmental Management Systems.	Public health is beyond the scope of the Regulations and the EP. It is the responsibility of the operator to ensure that all appropriate guidance material is referenced in the EP submitted to DMP.
164	The Guidelines are heavily slanted towards offshore petroleum extraction and need an overhaul to also address the growing complexities on onshore oil, gas and unconventional gas extraction.	Noted. Guidelines will be updated to reflect onshore activities and relevant aspects and impacts.

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Comment	Issue	DMP Response
165	[Petroleum company] welcomes the proposed Guidelines and the intent to provide clarity and assistance for operators in preparing EPs in compliance with the draft Regulations. In this regard, [Petroleum company] considers it would be useful for the Guidelines to note how activities across State and Commonwealth waters are to be treated, given there are proposed to be four sets of Regulations covering similar matters.	All petroleum activities proposed within State waters require the submission of an EP to DMP for assessment and approval. All petroleum activities proposed within Commonwealth waters require the submission of an EP to NOPSEMA for assessment and approval.
166	In the interests of continually improving the guidance, it would also be useful to consider and include how and when the Guidelines will be updated in light of experience with their use.	The Guidelines will be updated on an as needs basis determined by DMP. DMP welcomes continual feedback from stakeholders.
167	Noting that the document is still in draft form, [Petroleum company] highlights that there are still a number of amendments that may be required to make it consistent with the new State conditions and Regulations, rather than the Commonwealth arrangements.	Noted. Guidelines will be updated to reflect onshore activities and relevant aspects and impacts

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