2012 Review of the OPGGS (Environment) Regulations

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Implementation and Regulatory Guidance

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• Introduction to the process
• Progress to date and next steps
• Key issues identified by NOPSEMA
• Questions
• First major review in 12 years

• Headed by the Department of Resources, Energy and Tourism (RET)

• NOPSEMA provide specialist technical input
Introduction

• Objectives-based regime to be maintained

• Onus will remain with the operator to demonstrate acceptable and ALARP impact and risk management

• Industry comments to be coordinated through APPEA
To Date

Next Steps

• Terms of Reference Finalised and Published – 15 May 2012
• Issues paper under draft
• Issues paper finalised and published for public comment
• Final Government position prepared
• Drafting instructions prepared
• Ministerial review and tabling in parliament
Key Issues

• Duties and Responsibilities under the OPGGSA and OPGGS(E)R

• What is a petroleum activity?

• Consultation and transparency

• Monitoring environmental performance

• Oil spill preparedness and response planning
Duties and Responsibilities

• The Instrument Holder
  • All holders
  • Must ensure there is an operator for an activity
  • Must notify the Regulator of the operators details – notification of appointment of operator (Regulation 31)
  • Ultimately responsible under the OPGGSA – penalties and enforcement

• The Operator
  • Responsible to the Instrument Holder
  • Responsible for submission of an environment plan
  • Responsible under the Regulations – penalties and enforcement
Duties and Responsibilities

• Goal – to clarify the responsibilities of the instrument holder and operator under the Act and the Regulations and reduce administrative burden on industry and the Regulator.
What is a petroleum activity?

- Definition under the Regulations includes
  - Any operations carried out under a petroleum instrument, other authority or consent
  - Any activity relating to petroleum exploration or development which may have an impact on the environment
  - Specific activities as listed including “other surveys”

- Goal – To better define and clarify what constitutes a petroleum activity under the Regulations and therefore the requirement for submission of an environment plan
Consultation and Transparency

• Review the effectiveness of consultation provisions under the Regulations
  • New provisions for consultation introduced 1 April 2012

• Review the transparency of the EP process
  • Publication of information by NOPSEMA
  • Provision of information by instrument holders/operators to 3rd parties

• Goal – To ensure NOPSEMA’s decisions on petroleum activities are made in accordance with the principles of natural justice
Monitoring Environmental Performance

• The effectiveness and completeness of monitoring provisions to detect impacts of petroleum activities

• Key recommendations of the Montara Commission of Inquiry accepted by Government
  • Off the Shelf Monitoring Programs (OSMP)
  • Baseline and environmental monitoring of routine operations
  • Operational and scientific monitoring of oil spills

• Goal – To integrate the accepted recommendations of the Inquiry into the regulatory regime
• Incorporate recommendations of the Montara Commission of Inquiry
  • Operational and scientific monitoring, insurance, mutual aid arrangements
  • Implementation of the polluter pays principle
  • Consistency with national response arrangements

• Clarify the scope and content of OSCPs
Goal – To ensure the social, environmental and economic impacts of significant offshore petroleum incidents are appropriately addressed in the legislative regime
Any Questions?
Objective

• Provide an update on the Guidance Note Project and next steps
• Provide insight into NOPSEMA thinking on the regulatory interpretation for the Guidance Note Project
• Consultation on priority elements that underpin the EP process
Outline

• Overview:
  – EP Guidance Note Project objectives
  – Planned document structure
  – EP process
• Priority elements

  Describe:             Acceptable Level
  Evaluate & demonstrate:   ALARP
  Perform & Monitor:     Performance Objectives
                          Performance Standards
• Priority elements applied to the EP process
• Way forwards:
  – EP Overview Guidance Note: Elements
  – Next steps
Overview
Develop useful, understandable and practical guidance

Provide clear descriptions of NOPSEMA’s interpretation of regulatory requirements for environment plan (EP) content (administrative processes dealt with separately)

Consistent with OPGGS(E) Regulations, with a reasonable and justifiable basis

Consistent with objective-based regime
  – Focus on ‘what needs to be demonstrated’ not ‘how to demonstrate’

Avoid regulatory “creep” – expansion of requirements beyond Regulations
Environmental management external document structure

- Environmental Management Law
- OPGGS Act
- OPGGS (Env) Regulations
- Policy
- Guidelines
- Guidance
- Advice
Approach:

- EP Guidance Notes - adopt a system-based model as basis
- Structured on process elements
- All priority issues/topics raised will be covered
AS/NZS ISO 31000:2009

EP process

CONSULT

DESCRIBE

Risk assessment

DETAIL

DETAIL

EVALUATE & DEMONSTRATE

EVALUATE & DEMONSTRATE

PERFORM & MONITOR

NOPSEMA
## Environment plan content

<table>
<thead>
<tr>
<th>Process</th>
<th>Element (regs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Describe 13(1)(2)</td>
<td>Activity</td>
</tr>
<tr>
<td></td>
<td>Environment</td>
</tr>
<tr>
<td></td>
<td>Requirements</td>
</tr>
<tr>
<td></td>
<td>Acceptable level</td>
</tr>
<tr>
<td>Detail 13(3a)</td>
<td>Impacts and risks</td>
</tr>
<tr>
<td>Evaluate 13 (3b)</td>
<td>Impacts and risks</td>
</tr>
<tr>
<td>Demonstrate 11(1b,c)</td>
<td><strong>ALARP</strong></td>
</tr>
<tr>
<td></td>
<td>Acceptable level</td>
</tr>
<tr>
<td>Perform 11(1d) 13(4)</td>
<td><strong>Objectives</strong></td>
</tr>
<tr>
<td>Monitor 11 (1e)</td>
<td>&gt;Measurement criteria</td>
</tr>
<tr>
<td>Consult 11 (1f)</td>
<td><strong>Standards</strong></td>
</tr>
<tr>
<td></td>
<td>Monitoring</td>
</tr>
<tr>
<td></td>
<td>Reporting</td>
</tr>
<tr>
<td>Plan to implement</td>
<td>Consultation</td>
</tr>
<tr>
<td></td>
<td>Implementation strategy</td>
</tr>
</tbody>
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Priority elements
Interpretations for:

Describe: Acceptable level
Evaluate & demonstrate: ALARP
Perform & monitor: Performance objectives, Performance standards
• there are **reasonable grounds** for believing that the plan **demonstrates** that the environmental impacts and risks of the activity will be of an acceptable level [11(1)(c)]
Acceptable Level – Regulatory definition?

- No definition provided in Regulations, but some qualities of ‘acceptable level’ include:
  - manner consistent with principles of ecological sustainable development [3(a)]
  - demonstrates that impacts and risks will be of an acceptable level [11(b)]
  - measures (if any) that the operator has adopted as a result of consultation [11(f)(ii)]
  - the environment plan must describe other requirements that apply [13(5)]
• ISO 31000: to determine if a risk is acceptable or tolerable it is compared with risk criteria

• Risk criteria definition: Terms of reference against which a risk is evaluated
  – Based on organisational objectives, and external and internal context
  – Can be derived from standards, laws, policies and other requirements
Interpretation of acceptable level

• A level at which impact(s) and/or risk(s) become acceptable. In setting the acceptable level, the following need to be considered:
  – principles of ecological sustainable development
  – other requirements (including standards, laws, policies)
  – internal context (e.g. consistent with operator policy and goals)
  – external context (environment and stakeholders)

‘Acceptable level is the level of impacts and risks that broad considerations, including principles of ESD, other requirements, the environment and stakeholders, indicate are acceptable for the specific activity’
• There must be **reasonable grounds** for believing that the plan **demonstrates** that the environmental **impacts and risks** of the activity will be **as low as reasonably practicable** [11(1)(b)]

• The implementation strategy must identify the specific systems, practices and procedures to be used to ensure that the environmental impacts and risks of the activity are continuously reduced to **as low as reasonably practicable** and that the environmental performance objectives and standards in the environment plan are met. [14(3)]
“Reasonably practicable is a narrower term than ‘physically possible’ and seems to me to imply that a computation must be made by the owner, in which the quantum of risk is placed on one scale and the sacrifice involved in the measures necessary for averting the risk (whether in money, time or trouble) is placed in the other; and that if it be shown that there is a gross disproportion between them — the risk being insignificant in relation to the sacrifice — the defendants discharge the onus on them.”

Edwards v National Coal Board [1949] All ER 743 (CA)
• ALARP is the point where the sacrifice required to reduce the environmental impacts and risks of the activity any further would be grossly disproportionate to the environmental benefit gained

‘If it is reasonably practicable to implement a better environmental management option, then it must be done’
• The object of these Regulations is to ensure that any petroleum activity is carried out in accordance with an environment plan that has **appropriate** environmental performance objectives [3(b)(i)]

• Environmental performance objective means the **goals of an operator** that are mentioned in an environment plan accepted under these Regulations [4(1)]
  — This definition was added in 2005 to be **consistent with ISO 14001** (Explanatory Statement, 2005)

• There are reasonable grounds for believing that the plan ... provides for **appropriate** environmental performance objectives ... [11(1)(d)]
The environment plan must include environmental **performance objectives**, environmental performance standards and measurement criteria that [13(4)]:

a) address legislative and other controls that **manage environmental features** of the activity

b) define the objectives, and set the standards, against which **performance by the operator in protecting the environment is to be measured**

c) the EP must include measurement criteria for determining whether the objectives have been met

- Recordable incident means an incident arising from the activity that breaches an environmental performance objective [4(1)]
Performance Objectives
- ISO 14001

- ISO14001 Definitions:
  - environmental performance - measurable results of an organization's management of its environmental aspects
  - environmental objective - overall environmental goal, consistent with the environmental policy, that an organization sets itself to achieve

- ISO does not provide additional clarity on the use of performance objectives

- Also, regulations are not clear on what specific role performance objectives play in an EP.
Interpretation of Environmental Performance Objectives (1)

**Appropriate** Environmental Performance Objectives need to have the following characteristics. They:

- are appropriate for the nature and scale of the activity (i.e. relative to the size, complexity and environmental risk level of an activity)
- are specific to the activity
- have a demonstrated and reasonable basis for their selection
- as a whole, cover all the environmental features potentially at risk; and
- are developed from the EP’s definition of acceptable level which need to consider:
  - principles of ecological sustainable development
  - other requirements (inc. standards, laws, policies)
  - internal context (e.g. consistent with operator policy and goals)
  - external context (environment and stakeholder)
Interpretation of Environmental Performance Objectives (2)

So, appropriate Environmental Performance Objectives need to:

- set a level of performance that will meet, or be better than, the acceptable level
- define the level at which an incident is recordable (i.e. breach of a performance objective)
- allow measurement of environmental performance against the set level
- have measurement criteria

Acceptable level is about defining acceptable performance in the planning phase

Performance objectives is about demonstrating acceptable performance in the implementation phase
Environmental performance standards - regulations

– environmental performance standard means a statement of performance required of a system, an item of equipment, a person or a procedure, that is used as a basis for managing environmental risk, for the duration of the activity in accordance with the objectives of the regulations, as set out in an environment plan accepted under these Regulations. [4(1)]

– The EP must include measurement criteria for determining whether the standards have been met [13(4)(c)]

– Recordable incident means an incident arising from the activity that breaches an environmental performance standards [4(1)]
Environmental performance standards – ISO 31000

• Control – measure that modifies risk
  – Controls include any process, policy, device, practice or other action which modify risk

• Interpretation of Regulations:
  – “A system, an item of equipment, a person or a procedure, that is used as a basis for managing environmental risk” is interpreted as being a control measure (or management measure)
Interpretation of environmental performance standards

- environmental performance standard means a statement of performance required of a control measure
- is a measurable target for an organisation’s management of its environmental performance
- is achievable (i.e. not normally in breach or exceeding during operations)
- performance standards must have measurement criteria

*Performance Standards should be S.M.A.R.T.*
Priority elements applied to the EP process
Elements in the EP process

- Describe: Acceptable level
- Evaluate: Acceptable level
- Evaluate: ALARP
- Env. Performance Objective & Measurement Criteria
- Env. Performance Standard & Measurement Criteria
- ALARP
- Environmental Performance Objective & Measurement Criteria
- Environmental Performance Standard & Measurement Criteria

Activity assessment + Strategy (Plan for implementation)

AS/NZS ISO 14001
Application of elements in the EP process

Context:
- ESD principles
- Activity
- Environment
- Stakeholders
- Policy
- Requirements

Acceptable Level

Detail Impacts and Risks

Evaluate I&R

Acceptable Level & ALARP

Controls

Performance Objectives & Measurement Criteria

Performance Standards & Measurement Criteria

Implementation strategy
Way forward
<table>
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PROCESS

EVALUATE & DEMONSTRATE:

ELEMENT

ALARP

Regulation
11 (1) (b) demonstrates that the environmental impacts and risks of the activity will be reduced to as low as reasonably practicable;
14 (3) The implementation strategy must identify the specific systems, practices and procedures to be used to ensure that the environmental impacts and risks of the activity are continuously reduced to as low as reasonably practicable and that the environmental performance objectives and standards in the environment plan are met.

Regulatory Interpretation:

Objective
To ensure the environmental impacts and risks of petroleum activities are managed to as low as reasonably practicable (ALARP) while allowing individual companies to adopt environmental practices and technologies best suited to individual company circumstances, activities and locations.

Core Concepts
- ALARP is the point where the sacrifice required to reduce the environmental impacts and risks of the activity any further would be grossly disproportionate to the environmental benefit gained
- The Operator must demonstrate in the EP that impacts and risks will be managed to ensure they are reduced to ALARP
- The implementation strategy must show how impacts and risks will continue to be ALARP for the life of the activity
- Operators need to provide sufficient justification and supporting information in the EP in order for the Regulator to have reasonable grounds for believing the environmental impact and risks are ALARP
- The demonstration of ALARP must be appropriate for the nature and scale of the activity
- Demonstration of ALARP is a particular requirement of the Regulations, but should be considered in conjunction with the acceptable level requirement. Impacts and risks must be managed to ALARP and must also be at an acceptable level.

Considerations
- ALARP is specific to the context of the activity and its impacts and risks, which means that what is ALARP in one circumstance, may not be ALARP in another
- Management measures or controls that are required to ensure environmental impacts and risks are ALARP should be clearly identified
- Where management measures or controls are introduced, any impacts or risks that could be caused by the control must also be addressed by the EP
- Any statements made by the operator to demonstrate that impacts and risk are ALARP should be adequately justified. The justification of statements should include sufficient supporting evidence or references such that NOPSEMA can reasonably determine their accuracy and reliability
- The approach used in providing the required demonstration of ALARP within an EP is at the discretion of the operator
- Approaches that could be considered in presenting an ALARP demonstration include:
  - Application of the control hierarchy (best first): elimination; prevention; reduction and mitigation
  - Comparative assessment of alternatives to reduce environmental impacts and risks relative to their sacrifice (e.g. cost, schedule, operability, safety)
  - Impact or risk is sufficiently low, such that any benefit gained is likely to be negligible (and consequently any significant sacrifice would be grossly disproportionate)
  - Comparison of impact and risk with company and societal values for what is reasonably practicable

Definitions
Management measure or control - a system, an item of equipment, a person or a procedure, that is used as a basis for managing environmental risk
Acceptable Level

**Regulation**
11(1) (c) demonstrates that the environmental impacts and risks of the activity will be of an acceptable level

**Regulatory Interpretation:**

**Objective:**
To document and provide evidence that the environmental impacts and risks of petroleum activities are managed to an acceptable level, where the basis for the acceptable level is appropriately demonstrated in the EP

**Core Concepts:**
- Acceptable levels are not prescribed in the Regulation (note however, the specific requirements of Regulation 29 with regard to produced formation water) and the EP should demonstrate whether impacts and risks will be of an acceptable level by evaluating them against acceptable levels defined by the operator
- Acceptable level means a level at which impacts and risks become acceptable
- In setting the acceptable level, the following need to be considered:
  - principles of ecological sustainable development
  - other requirements (including standards, laws, policies)
  - internal context (e.g. consistent with operator policy and goals)
  - external context (environment and stakeholders)
  - demonstration of ALARP
- The basis for the acceptable level must be defined and demonstrated in the Environment Plan
- Operators need to provide sufficient justification and supporting information in the EP in order for the Regulator to have reasonable grounds for believing the environmental impacts and risks will be of an acceptable level
- The demonstration of acceptable level must be appropriate for the nature and scale of the activity

**Considerations:**
- Impacts and Risks with adverse consequences can be generally considered to fall within these categories:
  - Risks that are unacceptable in any circumstances or at any level, or exceed thresholds set by regulations or organisational policy (also known as intolerable risks)
  - Risks that require further consideration in order to decide whether and how to treat them and are acceptable under certain circumstances (also known as tolerable risks)
  - Risks that are at an acceptable level, and do not need to be considered further
- Acceptable levels in the Regulations are interpreted as terms of reference against which the significance of a risk is evaluated (see AS/NZS 31000 and HB 203)
- To demonstrate that the environmental impacts and risks for the activity will be of an acceptable level, the operator, having identified and analysed the risks, should evaluate the impacts and risks by comparing the results of the risk analysis with defined acceptable levels to determine whether the impacts and risks and/or its magnitude are acceptable, or if the risk requires further treatment
- The selection and basis for risk criteria is analogous to acceptable levels and is discussed in AS/NZS 31000:2009 and HB 203:2012 (e.g. HB 203:2012 Appendix F) which make the point that the criteria used for evaluating risks are set during the process of establishing the context
- Demonstrating that the environmental impacts and risks of the activity will be of an acceptable level is the process of recording the results of the evaluation, providing a reasonable basis for the statements made by the Operator, clearly outlining the evidence and documenting this in the Environment Plan
What next

• Overview Guidance Note released for comment – September
• Further advice on individual elements – Prioritised as per previous feedback
• Release of *Environment Plan Basics* package
• Upcoming workshops
Questions?