Environment plan workshop for offshore petroleum

Operator and titleholder workshop
11 April 2012
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<td>Jane Cutler&lt;br&gt;CEO, NOPSEMA</td>
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<td>AMOSC/APPEA opening statement</td>
<td>Miranda Taylor&lt;br&gt;APPEA</td>
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<td>EP regulation – key principles and learning</td>
<td>Karl Heiden&lt;br&gt;Manager, NOPSEMA</td>
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<td>Matt Smith&lt;br&gt;Manager, NOPSEMA</td>
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<td>Question &amp; Answer</td>
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<td>Facilitated workshop session</td>
<td>Miranda Taylor/Keld Knudsen&lt;br&gt;APPEA</td>
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<td>Industry next steps</td>
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Introducing NOPSEMA

Jane Cutler
Chief Executive Officer
NOPSA established for regulation of safety (1 January 2005)

Productivity Commission
Review of the regulatory burden on the offshore petroleum industry

Montara Commission of Enquiry
Australian Government response to establish single national regulator

NOPSA regulation of well integrity (April 2011)

NOPSEMA established including addition of environmental management regulation (1 January 2011)
Independent statutory authority

- State/NT Ministers for Resources
- Commonwealth Minister for Resources
- NOPSEMA Advisory Board Chair
- NOPSEMA CEO
- Department of Resources, Energy & Tourism Secretary
- National Offshore Petroleum Titles Administrator (NOPTA)

Joint Authority

reporting where powers conferred
Vision
A safe and environmentally responsible Australian offshore petroleum industry

Mission
To independently and professionally regulate offshore safety, integrity and environmental management
Legislation administered by NOPSEMA

- Commonwealth *Offshore Petroleum and Greenhouse Gas Storage Act 2006*
  - Schedule 3 – OHS law
  - safety regulations
    - wells via resource mgt regulations
    - environment regulations
Legal framework

- A ‘General Duties’ regime for offshore petroleum & greenhouse gas storage operations
- Performance-based, but with some prescriptive elements
- An **independent** Safety and Environmental Management Authority, funded by levies on industry
- A duty holder’s management plan, accepted by NOPSEMA is used as a permissioning document:
  - Safety case
  - Well operations management plan
  - Environment plan
NOPSEMA operates under legislated functions

<table>
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<th>Monitor &amp; Enforce</th>
<th>Investigate</th>
<th>Compliance</th>
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<td>Promote</td>
<td>Advise</td>
<td>Improvement</td>
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<tr>
<td>Co-operate</td>
<td>Report</td>
<td>Governance</td>
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NOPSEMA approach to regulation

• Independent and professional
  - Transparent, coherent policies and processes, shared with industry and consistent with the requirements of the regulations, administered by a critical mass of skilled professionals that focus on ensuring duty holders, and the regulator, comply with their obligations specified in law

• Respect for “due process”
  - Timely and competent decisions based on criteria set out in the regulations
  - Processes outside the regulatory requirements are not created
  - Requirements and interventions by the regulator are not arbitrary

• Certainty for industry and a reduction in regulatory burden

• Ongoing dialogue
Scope of regulation – jurisdiction

NOPSEMA

Relevant State/NT Minister or NOPSEMA where powers conferred*

* Current conferrals: for safety only in all states except WA
Scope – decision jurisdiction across petroleum resource development life cycle

Seismic / other surveys: Environment Plan (EP)

Drilling: SC, EP, WOMP, AAUWA

Construction, Production: SC, EP, PSZ

Decommissioning: SC, EP, AAUWA

EPBC Act referral(s) (and EIA)

EPBC Act decision

EPBC Act conditions of approval/compliance
NOPSEMA’s regulatory activities

**Assessment**
- Independent, sampled evaluation of an operator’s submission against the regulations
- Challenge operators: “Have you done enough?”

**Inspection**
- Independent, sampled inspection of the petroleum activity against the accepted EP and regulations
- Challenge operators: “Are you doing what you said you would do?”

**Investigation**
- Independent inspection to determine what went wrong and determine whether enforcement/prosecution is required
- Challenge operators: “What wasn’t done? What can we learn?”

**Enforcement**
- Take action within powers under the Act and regulations to secure compliance
APPEA opening statement

Miranda Taylor
Environment Plan regulation
Key principles and learning
a) ALARP
b) Stakeholder consultation

Karl Heiden
# Overview*

<table>
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<th>Submissions Received</th>
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<tr>
<td>Transferred from DAs</td>
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<th>Acceptances</th>
<th>6</th>
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<tr>
<td>Refusals</td>
<td>2</td>
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<tr>
<th>Regulator response to Operator</th>
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<td>Regulation 11(2) – not reasonably satisfied</td>
<td>4</td>
</tr>
<tr>
<td>Regulation 10(1)(c) – unable to make a decision</td>
<td>16</td>
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*as at 4 April 2012
Environment Plan and Oil Spill Contingency Plan Content

Key Areas

• Demonstration of ALARP and Acceptable level
• Stakeholder consultation
• Performance objectives, standards and criteria
• Normal operations vs potential emergency conditions
Demonstration of ALARP
Regulatory Requirements

• Acceptance Criteria
• Regulation 11(1)(b)
  – demonstrates that the environmental impacts and risks of the activity will be reduced to as low as reasonably practicable

• Regulation 13(3)(a) & (b)
• Regulation 13(3A)(a) & (b)
• Regulation 14 (3)
Demonstration of Acceptable Level Regulatory Requirements

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

• Regulation 13(3)(a) & (b)
• Regulation 13(3A)(a) & (b)
Demonstration of ALARP
NOPSEMA Guidance

• Reasoned and supported arguments as to why and how a specific method/activity was selected

• The following approaches (or combinations thereof) could be considered:
  – Comparative analysis of alternatives
    • Benchmark against good practice
    • Comparison with codes and standards
    • Scientific testing
  – Cost benefit analysis
  – Hierarchy of controls
Example Warning

• NOPSEMA recognises the importance of providing examples to demonstrate concepts
• Concepts should then be applied by operators whilst thinking deeply about and developing the submission
• Examples should be taken at face value and are deliberately not specific to any circumstance
• Examples should not to be replicated in any submission under any circumstance.
• Examples only outline possible approaches, best practices and guidance on core concepts
Demonstration of ALARP

Example

• Drill cuttings will be generated during drilling operations that will either be directly discharged to the seabed or from the rig after processing. Approximately 300m³ will be directly discharged to the seabed. The activity area is in deep open ocean waters where this small waste stream will disperse rapidly and widely.

• As an alternative, disposal drill cuttings onshore would require storage on deck where there is limited space, dedicated containers and additional packaging, handling, transport, and transfer to a licensed landfill site located more than 50 km by road from the port. This is not considered to be practicable due to the time, costs and inconvenience involved and the environmental impacts associated with onshore disposal.
ALARP...
Any questions?
Stakeholder Consultation
Regulatory Requirements

• Acceptability Criteria

• Regulation 11 (f)

  for the requirement mentioned in paragraph 16 (b) — demonstrates that:

  (i) the operator has carried out the consultations required by Division 2.2A; and

  (ii) the measures (if any) that the operator has adopted, or proposes to adopt, because of the consultations are appropriate.

• Regulation 14(9)

• Regulation 16(b)

• Regulation 11A (Division 2.2A)
Stakeholder Consultation
NOPSEMA Guidance

• Carry out and document stakeholder planning and consultation.
  – Identifying who is a ‘relevant person’
  – Sufficient information and time scale for informed consultation
  – Demonstrate how relevant feedback taken into account

• Document plan for future, ongoing engagement
Stakeholder Consultation Example

• Demonstration of consultation with a third party spill response organisation is expected where the use of third party resources to combat a spill has been documented in the environment plan including oil spill contingency plan.

• Writing to a stakeholder and stating that no response was received may not be appropriate, if no demonstration is provided to justify whether a response is required.
Stakeholder Consultation...
Any Questions?
Oil Spill Contingency Plan regulation
Key principles and learning
a) Normal operations vs potential emergency conditions
b) Performance Objectives, criteria and standards

Matt Smith
The Oil Spill Contingency Plan

One submission

- Regulation 14(8) states that the EP must contain an OSCP
- OSCP are not accepted on their own
- OSCP assessed for suitability for the activity defined in the EP
- The structure of the submission is not prescribed.
- The EP submission as a whole must comply with the Regulations and meet the acceptability criteria defined in Regulation 11(1).
Remove full stop from end of all bullet point sentences apart from last one
Alison Carter, 4/5/2012
Key Principles – Oil Spill Contingency Plan Regulation

- Activity Description Reg 13(1)
- Environment Description Reg 13(2)
- Consultation Reg 16(b)
- Reporting Reg 15
- Implementation Strategy Reg 14
- Performance Objectives, Standards Reg 13(4)
- Impacts & Risks Reg 13(3)
Environmental risks of operations

**OSCP Approach:** risks from response strategies need to be managed

- **Proposed Activity**
  - Hydrocarbon Release
  - Identify & Evaluate Impacts and Risks
  - Performance Objectives, Standards & Measurement Criteria

**RESPONSE TECHNIQUES**

- Implementation Strategy inc. OSCP
- Response Technique
- Identify & Evaluate Impacts and Risks
- Performance Objectives, Standards & Measurement Criteria

Environmental risks of operations for potential emergency conditions
Industry Challenge - Balance

Planning Process
Justification of Activities
Planning Output (OSCP)

STATING YOUR CASE TO OPERATE
OPERATIONAL PLAN
Performance Objectives
• What do you want to achieve?
  – Response outcome focus?
  – Environmental outcome focus?

Performance Standards
• How are you going to achieve it?
  – Detail your minimum standard?
  – Timing/resources/technique mobilisation?

Measurement Criteria
• How do you measure when it has been achieved?
  – Auditable record of achievement?
  – Monitor efficacy of response techniques?
  – Termination criteria?
Simplified activity description and ALARP demonstration

- Crude oil releases > XX tonnes will be treated with dispersants where safe to do so.
- The likely spill locations are in deep water and dispersal of oil before it weathers will reduce risks to shorelines and bird/mammal colonies within the ZPI.
- As identified through the risk assessment process and NEBA, the net benefits of dispersant application in protecting the identified priorities outweigh the negative consequences to other environmental receptors within the ZPI.
- Whilst most dispersants are likely to be effective on this crude, two are preferred for lower toxicity. Of these two, stocks of XXXX dispersant allow us to disperse for the longest time.
- The crude has been tested and found to be effectively dispersed with Australian approved XXXX dispersant and the supply vessel has 4 tonnes on site for deployment with further stockpiles available in Exmouth (30 tonnes) and Geelong (90 tonnes).
- The crude was analysed for its weathering characteristics which has informed our decision to only spray fresh oil within a 10-hour window for effectiveness.
- Spraying will only occur within the areas defined (see map X), at a ratio of 20:1 or greater and cease when no longer visually effective.
- Due to the properties of this crude alternative strategies are not sufficient to meet our objectives, although a monitor and evaluate strategy will be utilised to support the incident response. Daily operational monitoring (Type I) will inform the response.
- Whilst vessel recovery systems will be deployed in very large events through Tier 3 contractors, dispersants will be our primary response to prevent shoreline impact.
- Type II scientific monitoring management plan (see appendix X) will be implemented to measure environmental impacts of spill and response activities against baseline data.
Simplified example - performance objectives

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Simplified example – performance objectives

• Crude oil releases > XX tonnes will be treated with dispersants where safe to do so.
• dispersal of oil before it weathers
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• vessel recovery systems deployed in very large events
• dispersants will be our primary response to prevent shoreline impact.
• measure environmental impacts of spill and response activities against baseline data.
Simplified example - performance standards

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Simplified example – performance standards

- Crude oil releases > XX tonnes
- As identified through the risk assessment process and NEBA
- Stockpiles available in Exmouth (30 tonnes) and Geelong (90 tonnes).
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- Operational monitoring (Type I) will inform the response actions.
- Type II scientific monitoring management plan (see appendix X)
Simplified example – measurement criteria

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Simplified example - measurement criteria

- two are preferred
- stocks of XXXX dispersant
- supply vessel holds 4 tonnes on site for deployment; further stockpiles available in Exmouth (30 tonnes) and Geelong (90 tonnes).
- within the 10 hour window
- areas defined (see map X)
- ratio of 20:1 or greater
- cease when no longer visually effective.
- Daily operational monitoring
- scientific monitoring management plan (see appendix X) will be implemented
- measure environmental impacts of spill and response activities
Performance Objectives, Standards, and Measurement Criteria...
Any questions?
APPEA Workshop