Oil spill contingency planning workshop for offshore petroleum

Operator and titleholder workshop
20 March 2012
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Welcome and introduction

Cameron Grebe
What can we agree on?

• The operator is the best person to manage the risk.
• A safe and environmentally responsible offshore petroleum industry.
• Industry wants the flexibility of an objectives based approach.
• Industry needs a strong, independent and professional regulator.
• An industry, government and regulator prepared and ready to respond to significant oil spill incidents.
AMOSC/APPEA opening statement

Nick Quinn
OSCP regulation – key principles
a) Acceptability criteria
b) Content requirements

Matt Smith
The Oil Spill Contingency Plan

One submission

- Regulation 14(8) states that the EP must contain an OSCP
- OSCPs are not accepted on their own
- OSCPs 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).
OSCP Approach – Regulation 13(3)

Regulation 13(3) – Normal Operations

- Hydrocarbon Release
- Identify & Evaluate Impacts and Risks 13 (3)
- Performance Objectives, Standards & Measurement Criteria

RESPONSE TECHNIQUES

- Proposed Activity
- Implementation Strategy inc. OSCP

Regulation 13(3A) – Potential Emergency Conditions

- Response Technique
- Identify & Evaluate Impacts and Risks 13 (3A)
- Performance Objectives, Standards & Measurement Criteria
The Oil Spill Contingency Plan

Acceptability Criteria – Reg 11(1)

a) Nature and scale
b) ALARP
c) Acceptable level
d) Environmental performance objectives, standards and measurement criteria
e) Implementation strategy to ensure that systems, practices and procedures are continually reduced to ALARP
f) Appropriate consultation
g) Complies with the Act and the regulations.
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
Nature & Scale: Response Techniques

- Satellite Monitoring
- Aerial Surveillance
- Vessel Monitoring
- Vessel Dispersant
- Aerial Dispersant
- Sub-sea Dispersant
- Capping / Containment
- Protection Booming
- Vessel Containment & Recovery
- Shoreline Collection Booming
- Shoreline Cleanup
- Waste Management
- In-Situ Burning
- Media Management
Nature & Scale...
Any questions?
ALARP

Preparedness:
- Why is this risk unlikely?
- What can I do to manage the impacts and risks?
- Am I doing enough? Why?

Respond:
- What response techniques am I going to use?
- How much resource/capability do I have?
- How long is it going to take to deploy?
- Am I doing enough? Why?

Possible Approach

Prevention:
- Normal Operations
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 weathering will reduce risks to shorelines and bird/mammal colonies within the ZPI.
- As identified through the risk assessment process and NEBA, the 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 selected for lower toxicity. Of these two, stocks of XXXX dispersant allows us to dispense 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 at 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 the 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 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 allows 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 holds 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 the 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.
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• Type II scientific monitoring management plan (see appendix X) will be implemented to measure environmental impacts of spill and response activities against baseline data.
ALARP...
Any questions?
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 example - performance objectives

- **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 allows 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 holds 4 tonnes on site for deployment with further stockpiles available in Exmouth (30 tonnes) and Geelong (90 tonnes).
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- 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

• Crude oil releases > XX tonnes will be treated with dispersants where safe to do so.
• dispersal of oil before it weathers
• monitor and evaluate strategy will be utilised to support and inform the incident response.
• 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.

EXAMPLE TEXT SUPPLIED ONLY TO DEMONSTRATE A CONCEPT
Simplified example - performance standards

- **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 allows 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 holds 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 the 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 and inform the incident response**. Daily operational monitoring (Type I) will inform the response actions.
- 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 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).
- Only spray fresh oil within the 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.
- Monitor and evaluate strategy will be utilised to support and inform the incident response.
- Operational monitoring (Type I) will inform the response actions.
- Type II scientific monitoring management plan (see appendix X)
Simplified example – measurement criteria

• 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.
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• 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 - 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

EXAMPLE TEXT SUPPLIED ONLY TO DEMONSTRATE A CONCEPT
Performance Objectives, Standards, & Measurement Criteria...
Any questions?
Stakeholder Consultation

• What is appropriate...
  – Who is a relevant person?
  – What is sufficient information?
  – How much allows an informed assessment of possible consequence?
  – What are functions, interests or activities?
  – What is a reasonable period?

• Planning Consultation Vs Ongoing Consultation

• Regulations post 1 April
Consultation – OSRO’s

• What information is required to make a judgement on expectations and responsibilities?
• How do you ensure OSRO’s operate in compliance with the accepted EP?
• What cost recovery arrangements do you have in place?
• How do you assure response capabilities to be delivered?
Stakeholder Consultation...
Any Questions?
Submission Content
Requirements of the Regulations
Iterative Process of the Regulations (13(3A))

- Activity Description Reg 13(1)
- Environment Description Reg 13(2)
- Impacts & Risks Reg 13(3)
- Performance Objectives, Standards Reg 13(4)
- Implementation Strategy Reg 14
- Reporting Reg 15
- Consultation Reg 16(b)
13(1)
Description of the Activity
13(2)
Description of the Environment
13(3)
Description and Evaluation of Impacts and Risks
13(4)
Environmental performance objectives, standards & measurement criteria
14 Implementation Strategy

- Activity Description Reg 13(1)
- Environment Description Reg 13(2)
- Impacts & Risks Reg 13(3)
- Performance Objectives, Standards Reg 13(4)
- OSCP Reg 14(8)
- Implementation Strategy Reg 14
- Reporting Reg 15
- Consultation Reg 16(b)
Reporting

Consultation Reg 16(b)
Activity Description Reg 13(1)
Environment Description Reg 13(2)
Impacts & Risks Reg 13(3)
Performance Objectives, Standards Reg 13(4)
Implementation Strategy Reg 14
OSCP Reg 14(8)

Reporting Reg 15
16(b) Reporting

Consultation Reg 16(b)

OSCP Reg 14(8)

Activity Description Reg 13(1)

Environment Description Reg 13(2)

Impacts & Risks Reg 13(3)

Performance Objectives, Standards Reg 13(4)

Implementation Strategy Reg 14

Reporting Reg 15
Does the OSCP address the Regulations?

- Consultation Reg 16(b)
- Activity Description Reg 13(1)
- Environment Description Reg 13(2)
- Reporting Reg 15
- Impacts & Risks Reg 13(3)
- Implementation Strategy Reg 14
- Performance Objectives, Standards Reg 13(4)
Industry Challenge - Balance

- Planning Process
- Justification of Activities
- Planning Output (OSCP)

STATING YOUR CASE TO OPERATE

OPERATIONAL PLAN
Submission Content...
Any questions?