Aiming to keep people safe in troubled times through “never seen before” collaboration and leadership at all levels

International

- Global COVID-19 initiatives
- Executive leadership through financial restructuring
- Personal engagement in key operational matters
- Support of International Regulators Forum, International Oil & Gas Producers – “Problem Statement” initiative

Australia

- COVID-19 initiatives
- Support of DrillWell, DrillSafe
- Engagement with Drilling Industry Steering Committee
- Engagement through MODU inspections
- Making NOPSEMA’s contribution highly visible
Many, but we’re highlighting three issues for today

1. Tackling global issues
   - IRF/IADC/IOGP “Problem Statement” initiative
   - Innovative methodology: opportunity to replicate on success
   - Collaborative approach leveraging global reach

2. Decommissioning
   - Increased expectations for timely actions
   - Guidance available
   - Regulatory actions
   - New legislation proposed

3. Interface risks
   - Broader risk identification & control
   - Oil co/ drilling contractor/ service partner interfaces
   - Collaborative approach
1. Tackling global issues

IRF “Problem Statement” Initiative
Tackling global issues: An IRF Vision

Focused application of local legislation

Global improvement in offshore safety

Identify risk gaps
• Common
• Significant

Influence industry to address the risk gaps*

*Locally, plus collectively via global industry organisations

Why IRF?
IRF is ideally positioned to drive safety improvement in the upstream O&G industry:

• Privileged access to information
• Global perspective
• Safety focus, often linked to environment
• Legal powers to enact change
• Influence at many levels
Which Problems are being tackled

IRF and industry have prepared the following 3 problem statements to be addressed collaboratively

Prevention of well control incidents
- Greater emphasis on left hand side of well control bow-tie, particularly with regards to PPFG prediction and monitoring
- IRF oversight: Australia, USA, UK, Denmark

Investigation quality
- Improve investigation quality and improve ways to embed learnings
- IRF oversight: Brazil & Ireland

Digitalisation
- Reducing risks from automated systems with a human-centered design approach
- IRF oversight: Norway & Canada
Well Control Problem Statement

Problem statement:
Greater emphasis is needed on the left-hand side of the “Loss of Well Control” bow tie, particularly on pore pressure & fracture gradient prediction (PPFG) and its application to well design and construction.

Expected outcomes:
- Systematic approach to PPFG prediction
- Systematic workflows for translating PPFG data into well design
- Systematic implementation of existing guidance on well operating envelopes

Deliverables/KPIs:
- Publish PPFG industry guidance – target by Q1, 2022
- Joint IRF/IOGP/IADC implementation
- Reduced risk of well control incidents
Focus on left of Bow Ties - Example

Human & Organisation
- Well control practices & standards
- Barrier management
- Risk assessment & MOC
- Audit & Inspection

Operational Active
- Cemented casing
- Overbalanced well fluid

Kick

Human & Organisation
- Well kill response

Blow out

Operational Active
- BOP

Opportunity for increased integrated risk management and assurance
2. Decommissioning

Increased expectations for timely action
Decommissioning Policy

Section 572 Maintenance and removal of property

Document No: N-00500-PL1903 A720369
Date: 20/11/2020

Background to policy

In the October 2019 Statement of Expectations from the Minister for Resources and Northern Australia, the Minister highlighted the need for heightened oversight of titleholders’ compliance with their obligations under section 572 of the OPGSS Act.

The statement of expectations requires NOPSEMA, through its regulatory processes, to ensure that titleholders maintain structures, equipment and property in the title area in connection with the operations authorised by the title, and to remove them when neither used, nor to be used. Deviations from the requirement to remove property can only be accepted where it is appropriate having regard to the Australian Government Offshore Petroleum Decommissioning Guidelines.

NOPSEMA’s statement of intent issued in November 2019 outlined that NOPSEMA will, through its compliance monitoring and enforcement activities, ensure that titleholders are appropriately planning for and executing decommissioning activities in a timely and responsible manner.

To give effect to the statement of expectations and NOPSEMA’s statement of intent, NOPSEMA has established this regulatory policy to communicate how it will focus on titleholders’ compliance with section 572 through compliance monitoring and enforcement activities.

This regulatory policy may need to be amended depending on the implementation approach contained in the proposed Australian Government Decommissioning Policy Framework that is to be released. This regulatory policy continues to apply in the context of the existing legislative and administrative framework until these changes come into force.

§572(2)
A titleholder must maintain in good condition and repair all structures that are, and all equipment and other property that is:

a) in the title area; and
b) used in connection with the operations authorised by the permit, lease, licence or authority.

§572(3)
A titleholder must remove from the title area all structures that are, and all equipment and other property that is, neither used nor to be used in connection with the operations.

Policy
- Safety Case
- Environmental Plan
- WOMP
## Decommissioning Plan

<table>
<thead>
<tr>
<th>Field Level</th>
<th>Triggers</th>
<th>Compliance Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>Field is in a permanent state of non-production</td>
<td>General and Remedial Directions or formal requests for revisions to permissioning documents, Commencement of investigation</td>
</tr>
<tr>
<td>Moderate</td>
<td>Approaching end of field life (EOL) within 5 years</td>
<td>Compliance actions such as formal request to revisions of permissioning documents or seeking advice on compliance with decommissioning obligations from stakeholders, Verification of compliance through targeted compliance monitoring or assessment of permissioning documents</td>
</tr>
<tr>
<td>Lower</td>
<td>Operational end of field life in 5-10 years</td>
<td>Regular promote and advise opportunities, Verification of compliance through routine compliance monitoring or assessments of permissioning documents</td>
</tr>
<tr>
<td>Routine</td>
<td>Operational end of field life &gt; 10 years</td>
<td>Some promote and advise opportunities, Verification of compliance through routine compliance monitoring or assessments of permissioning documents</td>
</tr>
</tbody>
</table>
Strategy – Life Cycle Concept

Decommissioning Compliance Strategy

2021 to 2025

**End 2021**
- All new and revised permissioning documents demonstrate how decommissioning requirements have been considered

**End 2023**
- Decommissioning plans are in place for all structures, equipment and property that have ceased production
- All wells have been risk assessed and have accepted abandonment plans in place
- Moored or tethered buoyant infrastructure removed within 12 months of permanently ceasing operation

**End 2025**
- All structures, equipment and property decommissioned to approved end-state within 5 years of permanently ceasing production
- All wells have been plugged and closed-off with accepted abandonment report within 3 years of permanently ceasing production
- Successful prosecution or enforcement action taken when deemed necessary

**Objectives**

1. Ensuring all key stakeholders have appropriate plans for decommissioning activities
2. Coordinating and communicatingNOPSEMA’s regulatory and policy actions in relation to decommissioning-related legislative provisions
3. Ensuring all new and revised permissioning documents have been risk assessed and considered throughout the life cycle of a petroleum project
4. All wells have been risk assessed and have accepted abandonment plans in place
5. Moored or tethered buoyant infrastructure removed within 12 months of permanently ceasing operation
6. All structures, equipment and property decommissioned to approved end-state within 5 years of permanently ceasing production

**Assumptions**

- All new and revised permissioning documents demonstrate how decommissioning requirements have been considered
- Decommissioning plans are in place for all structures, equipment and property that have ceased production
- All wells have been risk assessed and have accepted abandonment plans in place
- Moored or tethered buoyant infrastructure removed within 12 months of permanently ceasing operation
- All structures, equipment and property decommissioned to approved end-state within 5 years of permanently ceasing production
- All wells have been plugged and closed-off with accepted abandonment report within 3 years of permanently ceasing production
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**Challenges**

- Decommissioning of offshore petroleum wells, structures, equipment and property completed in a timely, safe and environmentally responsible manner
- Improved understanding and capacity building for decommissioning activities in Commonwealth waters

**End 2021**

- All new and revised permissioning documents demonstrate how decommissioning requirements have been considered

**End 2023**

- Decommissioning plans are in place for all structures, equipment and property that have ceased production
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2. Interface Risks

Broader risk identification and control
NOPSEMA World of Risk – 5 year snapshot

231 Notifications 40% requiring investigation
Tight hole (Mud Man)
Gas lift annular problems

119 Notifications 30% requiring investigation

Wells awaiting P&A

Outdoors PP & GF Boundaries
At PP & FG Boundaries
BOP closing pressure calculations
BOP Pressure test

Injury while working in the derrick
Third party equipment Certification
Flow back equipment Use

1803 Notifications 46% requiring investigation

Well Integrity Risk
Environmental Risk
Safety Risk

IADC (A783109)
Who controls the risk now?

- Outside PP & GF Boundaries
- At PP & FG Boundaries
- BOP closing pressure calculations
- Injury while working in derrick
- Gas lift annular problems
- Tight hole (Mud Man)
- Flow back equipment Use
- Third party equipment Certification
- BOP Pressure test
Who is responsible for the consequences?

Outside PP & GF Boundaries

At PP & FG Boundaries

BOP closing pressure calculations

Injury while working in derrick

Gas lift annular problems

Tight hole (Mud Man)

Flow back equipment Use

Third party equipment Certification

BOP Pressure test
Integrated management reducing risk

Outside PP & GF Boundaries

At PP & FG Boundaries

BOP closing pressure calculations

Injury while working in derrick

Oil Company

Gas lift annular problems

Tight hole (Mud Man)

Flow back equipment

Use

Third party equipment

Certification

Drilling Contractor

Service Company

Opportunity for increased assurance from each other

IADC (A783109)
“Given the events of the past three years, drilling contractors should begin to act more like aircraft pilots than limousine drivers. Operators* in turn should begin to treat contractors more like technical partners concerning well design, construction, risk management and management of change”

Integrating barriers, bridging documents and SEMs using the Bow-Tie system. Scott Randall et al OTC 23692 May 2012

* In Australia the “Operator” carries the legal title of “Titleholder”
Questions?
Subscribe to NOPSEMA news and information via the form at: NOPSEMA.gov.au/resources
National Offshore Petroleum Safety and Environmental Management Authority

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