Australian Diving Regulations: How do we do it down under?

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Our Vision

Safe and environmentally responsible Australian offshore petroleum and greenhouse gas storage industry
• Australia’s National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA)
• An independent Statutory and Regulatory authority
• Established under the Commonwealth Offshore Petroleum and Greenhouse Gas Storage Act 2006
• Regulate under the Commonwealth Offshore Petroleum and Greenhouse Gas Storage (safety) Regulation 2009
Examples of facility types

Production Platforms and Vessels, Pipelines, Drilling, Pipe-lay, Construction & Decommissioning
Role and Responsibilities

Assess permissioning documents

Inspections
- Safety case and DSMS commitments
- Incident investigations

Enforcement

Promote

Advise

Knowledge

Monitor and secure compliance

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Our strategy for improvement

Stop old incidents
- Analyse databank of previous incidents
- Test for risks to ALARP in assessments and inspections

Find one, fix many
- Prevent future events through examination and sharing learnings from current non-compliances, incidents and best practices
- Enhance existing good practice

Respond to evolving trends
- Address transparency expectations
- Remove unnecessary regulatory burden to improve efficiency
- Looking elsewhere for better practices and tools to apply now
Diving regulation requirements

- Diving contractors require a NOPSEMA accepted Diving Safety Management System (DSMS)
- Diving projects require the Operator to approve a Diving Project Plan (DPP) prior to project execution
- Diving start-up notice (DSN) is submitted 14 days prior to project commencement
- NOPSEMA diving inspections are evaluated and planned on receipt of the DSN
Diving regulation requirements (ii)

- New facilities (vessels/DSVs) are inspected within 6 weeks of operating in the regime
- For the host facility being dived on, e.g. Platform – the safety case must have an appropriate level of diving content
- The diving support vessel’s safety case must have an appropriate level of diving content
• More regular diving system audits have resulted in a 80% reduction in number of diving system related issues and non compliance as compared with 2015
• Bell emergency recovery drills and Hyperbaric Evacuation System (HES) trials have resulted in better emergency response preparedness
• Deck diving systems emergency shutdown testing ensures diving systems are fit for purpose
• Early engagement on the diving content in safety cases has led to improved diving project compliance
Example - Requirements for HES trials

- Hyperbaric Lifeboat (HLB) recovery to the HRV & LSP function test
- HLB towing with emergency life support umbilical
- HLB road transport with LSP function test
- Mating trials with HRF
- HLB thermal balance trials
Example of Future: Prevent DP Incidents

Incident

Investigation identifies issues

Recommendations (Operator & Manufacturer)

Safety Alert/International Attention

A575886

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Big Data Opportunity?

2005: “Two pushes of the stand-by button took place within the allowed 4 seconds through a clipboard being put on the DP console”

2009: “Main Cause Human error – Placing of logbook on surge switch”

2013: “a clipboard was placed on the DP desk which resulted in the fore/aft surge button being inadvertently pressed”

2013: “DPO inadvertently pressed the joystick button with the logbook he was reading from”

2014: “Initiating Event: Auto DP was deselected when the rough DP logbook was placed on the DP control desk”
• DPO had to leave the DP console to activate alarm
• Alarm not activated during the event
• Traffic light DP alarm switch relocated
• Bell umbilical rack modified
• Bottom horns (in red) removed
• Top horns smooth rounded
• Bellman able to payout umbilical in a loss of DP and entangled diver scenario
Further Opportunities

- **Projects:**
  - Diving Guidelines 2018 - Guidelines for complying with chapter 4 (Diving) of OPGGS(S) Regulations
  - Station-keeping; Industry-wide and global collaboration
  - Reduce regulatory burden - Find one, fix many

- **Data sharing - Access to knowledge**
- **Continued collaboration with global regulators.**
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Questions?

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