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

Tam Harvey
OHS Regulatory Specialist (Diving)
Safety and Integrity Division

Bergen International Diving Seminar - Nov 2017

The Bergen International Diving Seminar 2017

NOPSEMA

nopsema.gov.au

NOPSEMA

Our Vision

Safe and environmentally responsible Australian offshore petroleum and greenhouse gas storage industry

The Bergen International Diving Seminar 2017

Who we are

- 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*

The Bergen International Diving Seminar 2017

What we regulate

Safety

Facilities

Integrity

Wells

Environment

Activities

The Bergen International Diving Seminar 2017

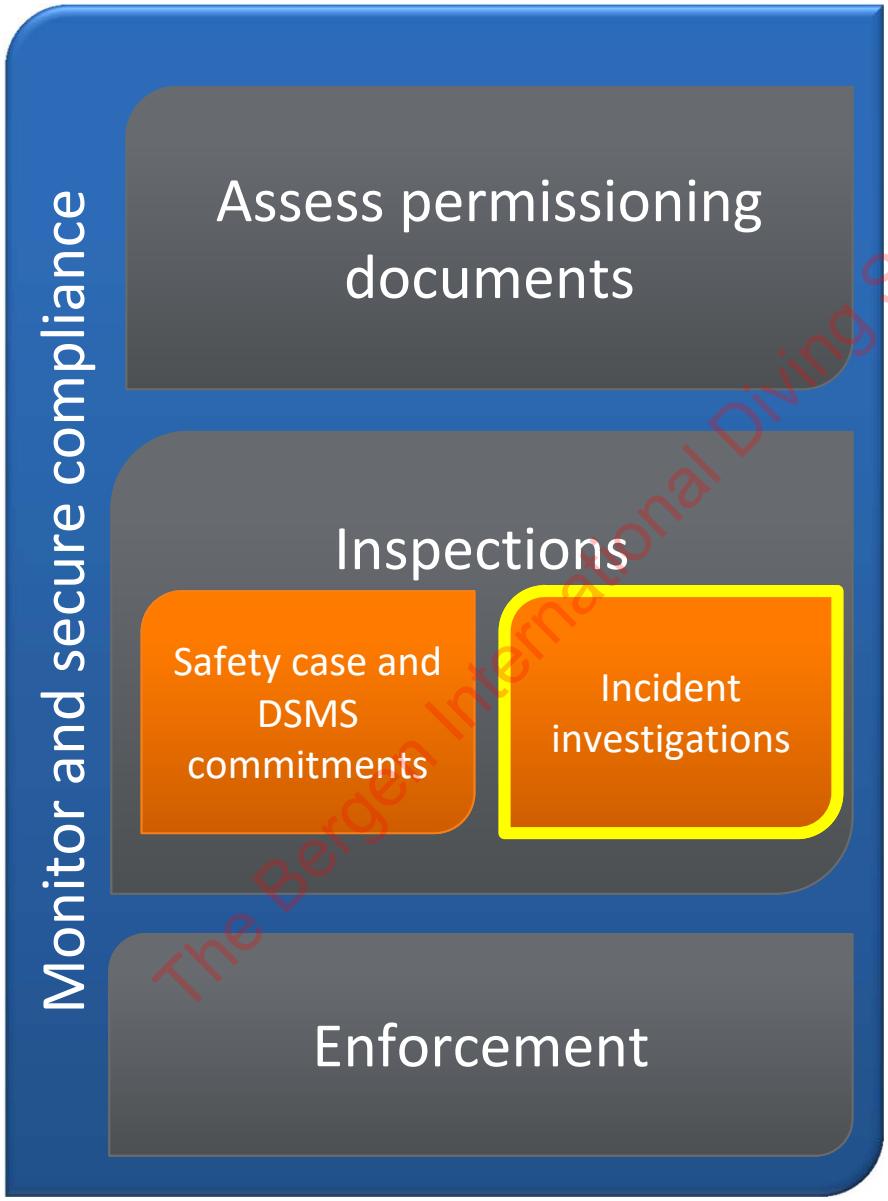
Examples of facility types

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

Vessels & Structures

The Bergen International Diving Seminar 2017

Role and Responsibilities



Promote

Advise

Knowledge

The Bergen International Diving Seminar 2017

Our strategy for improvement

Stop old incidents

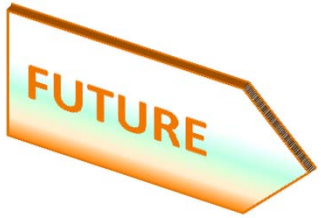
Analyse databank of previous incidents

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

The Bergen International Diving Seminar 2017

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

The Bergen International Diving Seminar 2017

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

The Bergen International Diving Seminar 2017

NOPSEMA

Diving Improvements

- 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

The Bergen International Diving Seminar 2017

NOPSEMA

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

The Bergen International Diving Seminar 2017

Example of Future: Prevent DP Incidents

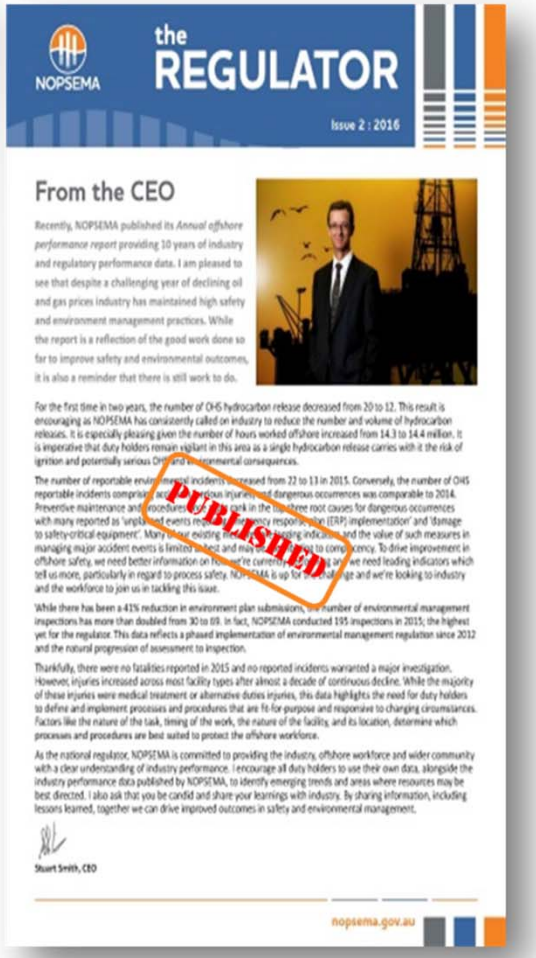
Incident

Investigation identifies issues

Recommendations (Operator & Manufacturer)

Safety Alert/ International Attention

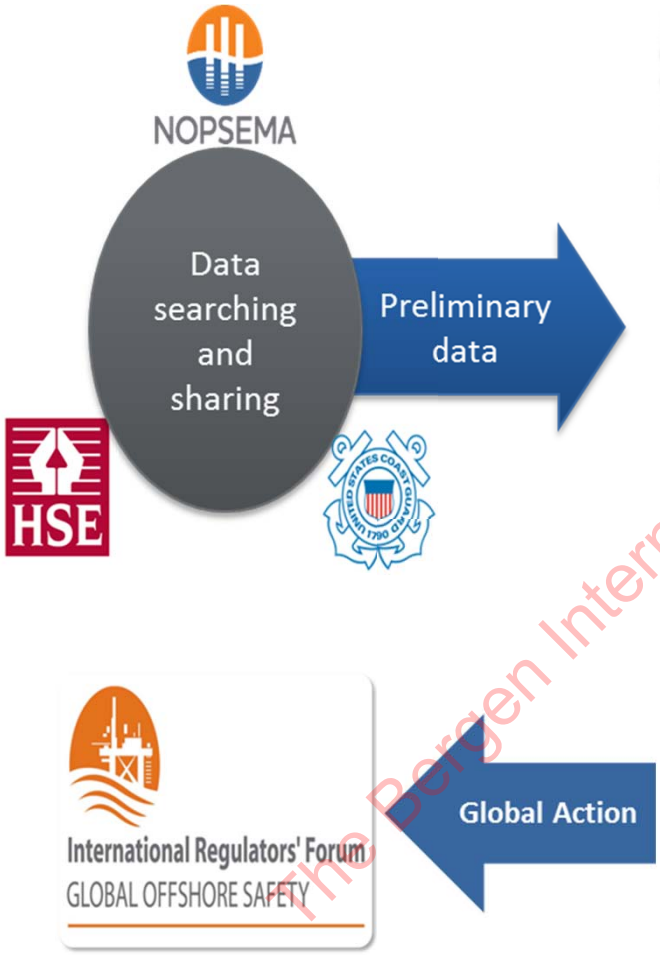
&



The Bergen International Diving Seminar 2017

NOPSEMA

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"*

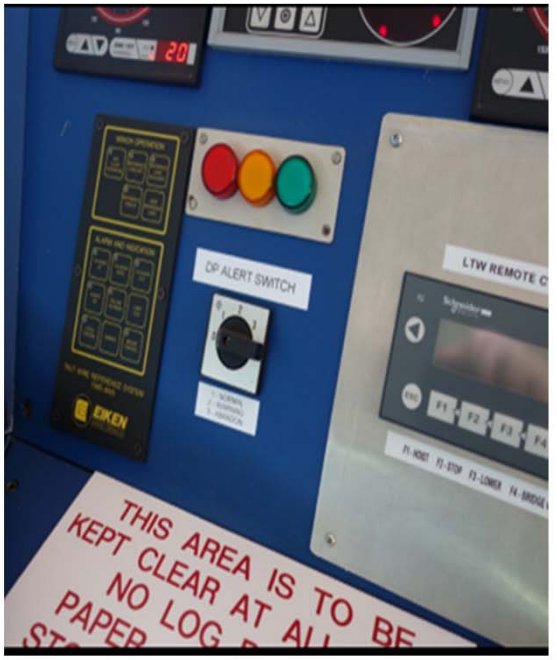
2013: *"DPO inadvertently pressed the joystick button with the logbook he was reading from"*

2014: *"Initiating Event: Auto DP was deselected when the rough DP logbook was placed on the DP control desk"*

The Bergen International Diving Seminar 2017

DP Diving Ergonomics

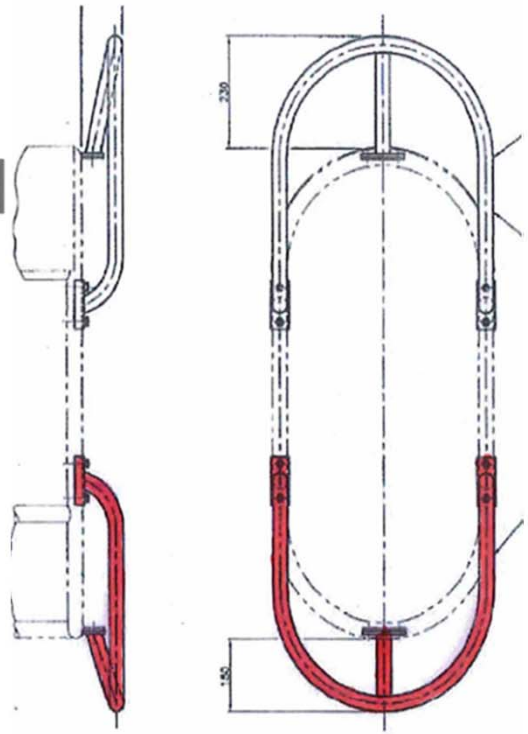
- DPO had to leave the DP console to activate alarm
- Alarm not activated during the event
- Traffic light DP alarm switch relocated



The Bergen International Diving Seminar 2017

Diving Bell Ergonomics

- 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



The Bergen International Diving Seminar 2017

NOPSEMA

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.

The Bergen International Diving Seminar 2017

Subscribe to NOPSEMA news and information via our website or contact:

communications@nopsema.gov.au

Questions?

The Bergen International Diving Seminar 2017