

Contents

From the CEO	1
International Regulators' Offshore Safety Conference	2
Performance standards for MODUs	4
Financial assurance requirements	5
Reportable environmental incidents	6
Testing safety critical equipment	7
Myth: We don't need radar	8
Reducing exposure to drilling fluids	9
Streamlining environmental assessments	9
Activity and performance	10
Schedule of events	13
<u>Glossary of acronyms</u>	

"A mistake is not something to be determined after the fact, but in light of the information until that point."

Nassim N. Taleb

From the CEO

A little over a week ago, I joined almost 200 regulatory, industry and workforce representatives in Perth for an intensive two-day conference focusing on preventing and reducing harm to the offshore workforce. I posed the question, "Are we doing enough to prioritise process safety and do all we can to prevent the next major offshore disaster?"



The International Regulators' Offshore Safety Conference drew together representatives from some nineteen countries across five continents to examine a persistent dilemma: that history shows major events come as a surprise to us and that, when these events occur, we continue to ask, "How could we not have known?"

In the context of risk management, there's a strong metaphor with particular reference to Australia to explain the challenge of managing hidden threats. Prior to colonisation, empirical evidence in Europe overwhelmingly pointed to the existence of white swans – and implied that black swans simply did not exist. But as the first Europeans on Australian soil soon learnt, their familiarity with white swans clearly did not preclude the existence of black swans on distant shores. And further, in hindsight they realised that the existence of a black swan should not come as a surprise simply because they had no prior experience of one.

More than 200 years later, those working in high-hazard industries are familiar with Nassim N. Taleb's 'Black Swan' theory. The theory remains relevant to current dialogue around safety for offshore operations across the globe: major accident events, like the Montara and Macondo blowouts, continue to surprise us, representing the 'Black Swan' in its most catastrophic form. That's why regulators, legislators, technical and behavioural specialists and policy-makers joined NOPSEMA and fellow members of the International Regulators Forum in Perth to examine the challenge of identifying something that appears harmless, but poses catastrophic harm.

I urge everyone to be candid and show courage in sharing information, even if it makes us feel uncomfortable or casts our systems in a poor light. My thanks go to those who make such a constructive contribution. In the interests of the offshore workforce, we cannot afford to view preventing the next major accident event as an intractable problem. It is a global challenge that, if tackled collectively, will save lives.



Jane Cutler, CEO



Collaboration, vigilance, prevention

October featured an important event for organisations across the globe working to promote safety in the offshore petroleum industry. Representatives from safety regulators, the oil and gas industry, the offshore workforce and researchers met in Perth to share, collaborate and leverage each other's knowledge of offshore safety issues and to identify opportunities for improvement. The program of events, including technical workshops, was initiated by the International Regulators Forum (IRF). The IRF has a membership of eleven national safety regulators, including NOPSEMA, that are committed to promoting safety of offshore workers across different jurisdictions.



International Regulators' Offshore Safety Conference 2013

On 21-23 October 2013, NOPSEMA hosted the 5th International Regulators' Offshore Safety Conference organised by the IRF. More than 170 delegates from 19 countries attended the conference, which was held two years after the IRF Summit Conference in Stavanger, Norway. The 2011 Summit focused on creating the opportunity between regulators and other industry stakeholders for frank dialogue about offshore safety in the wake of the 2009 Montara and 2010 Macondo blowouts. The 2013 Conference examined progress in implementing the range of regulatory and industry response measures to those major accident events and assessing whether enough had been done to prevent the next major offshore disaster. Presentation and roundtable topics focused on: priorities for further action; the challenge of maintaining asset integrity (reducing hydrocarbon releases and managing ageing facilities); and building workforce competence and engagement.

Under the theme 'Preventing the next Black Swan', the conference program provided a forum for regulators and operators to be open about past mistakes, demonstrate how processes have improved and, importantly, assess what more needs to be done to better protect offshore workers. For example, Ken Fitzpatrick, CEO of PTTEP

Australasia, spoke of the important safeguards the company has implemented since the Montara incident, emphasising that had these been in place earlier, they would have prevented the 2009 blowout and spill. Brian Salerno, Director of the United States Bureau of Safety and Environmental Enforcement, described regulatory responses in the US since the 2010 Macondo disaster that claimed eleven lives.

In addition to a stocktake of implementation to date, the conference focused on process safety and asset integrity risks, reflecting the connection between shortcomings in these areas and accidents with catastrophic consequences. Supplementing updates on programs run by regulators, such as on facility life extension in the United Kingdom, were insights into the devastating impact on offshore workers of poor design and risk management decisions. Jake Molloy from the UK National Union of Rail, Maritime and Transport Workers, emphasised how workforce involvement should be counted a safety critical element in both facility design and ongoing operation.

The IRF conference communiqué will summarise the outcomes of the conference, many of which were informed by the round table discussions, where delegates drew on their collective experiences and expertise to identify what more needed to be done to make offshore petroleum activities safer. The next IRF conference is scheduled for 2015. In the meantime, the IRF will use the momentum of the 2013 conference to better share safety lessons across jurisdictions and drive improved safety practice.



Safety culture – effective improvement strategies

Ahead of the conference, on 21 October, NOPSEMA organised a workshop on safety culture facilitated by Dr Mark Fleming, CN Professor of Safety Culture, Saint Mary's University, Canada. The workshop explored the different definitions and common dimensions of a mature safety culture and tools that organisations can use to assess and improve their safety culture.

Dr Fleming reported that examination of the causes of industrial disasters had identified links to the culture within the affected organisations. Four negative attributes of an organisation's safety culture were seen to be particularly relevant for the offshore industry and Dr Fleming emphasised four positive attributes, described as 'shields', which should be reinforced to counter these negatives.

Negative attributes of safety culture	'Shields' for positive safety culture
Production pressure	Leadership
Complacency	Vigilance
Normalisation of deviance	Empowerment and accountability
Tolerance of inadequate systems	Resiliency

Acoustic impacts and marine life

On 24 October, NOPSEMA invited a number of scientists to present their perspective on current research on the impacts of sound on marine life. Attendance and participation in the workshop demonstrated a high level of interest from environmental specialists. The presenters highlighted some of the key challenges around understanding and managing 'acoustic impacts': this kind of research is complex and multidisciplinary and it can be difficult to extrapolate the results of individual studies across different fauna groups and locations.

The Offshore Petroleum and Greenhouse Gas Storage Environment Regulations 2009 provide operators with flexibility in managing acoustic and other environmental impacts of their petroleum activities to levels that are acceptable and as low as reasonably practicable. But robust science is needed to support any approach to manage these impacts. The results of research are often not communicated widely or in a way that proposes applications for effective environmental management. The workshop aimed to build understanding of current research.

To make the most of opportunities to continuously improve, it is important that both regulators and industry challenge current practice to determine whether enough is being done or even whether some controls are appropriate for particular circumstances. Collaboration and sharing information is essential for delivering improved environmental outcomes.

"Safety culture is the product of individual and group values, attitudes, competencies and patterns of behaviour that determine the commitment to, and the style and proficiency of an organisation's health and safety programs."

(Advisory Committee for Safety in Nuclear Installations, 1993; p. 23)

"Safety culture is the shared basic assumptions, held by most members of an organisation, which create and reinforce group norms of thoughts, language and behaviour in relation to major accident event prevention."

(NOPSEMA, Human Factors resources on nopsema.gov.au)

International Regulators Forum – making safety priorities global

Also following the Offshore Safety Conference, on 24-25 October members of the IRF held their annual general meeting. Member organisations, including NOPSEMA, shared lessons from offshore incidents in their respective jurisdictions, reported on priority programs including research into fitness to operate and discussed progress towards global international standards for offshore safety. More information about the IRF and minutes from the meeting will be available on the IRF website, irfshoresafety.com.

IOPER AGM

In tandem with the conference organised by the IRF, members of the International Offshore Petroleum Environment Regulators (IOPER) held their annual general meeting. The group identified four issues to develop as work programs: regulating financial assurance; regulating oil spill preparedness and response; regulating key performance indicators; and regulating environmental transparency and consultation. Minutes from the meeting will be available on the IOPER website, ioper.org.

Presentations given at the conference and technical events can be found on the [conference website](#).



Joint efforts for improved use of performance standards for mobile drilling facilities

The application of performance standards is a proven means of managing the risks of major accident events and is a regulatory requirement of the Offshore Petroleum and Greenhouse Gas Storage (Safety) Regulations 2009. Over time, however, NOPSEMA inspectors have identified systemic deficiencies in operators' definition and application of performance standards.

On 21 October, the International Association of Drilling Contractors (IADC) and NOPSEMA held a joint workshop with the objective of disseminating regulatory advice and industry lessons learned on the subject, to improve risk control and promote regulatory compliance on mobile offshore drilling units (MODUs). The IADC membership welcomed the opportunity for an interactive discussion and the workshop was well attended by MODU operators.

NOPSEMA described how the content and structure of performance standards can be developed based on the 'goal setting' legislative framework, by considering a range of different input sources. This was supported by two IADC presentations on industry experiences and learnings in developing performance standards.

Effective approaches and formats discussed at the workshop highlighted a common approach: they specify measurable performance criteria that control measures are required to meet which in turn are linked to a facility's maintenance management system assurance activities, necessary to maintain the performance of the control measures over time. The presentation from the event and a detailed guidance note on control measures and performance standards are available on NOPSEMA's website, nopsema.gov.au.



Government introduces amended financial assurance requirements

Changes passed by the Commonwealth Parliament to amend insurance obligations for titleholders under the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* (OPGGS Act) will commence on 29 November 2013.

Amendments to the OPGGS Act, passed on 28 May 2013, clarify the 'polluter pays' principle and place a duty on titleholders to maintain sufficient financial assurance for their activities for the life of their title. The changes amend the previous duty to maintain insurance to a level as directed by the Designated Authority or Minister and are a result of the Australian Government's commitment to action recommendations made in the Report of the Montara Commission of Inquiry.

Subsection 571(2) of the revised OPGGS Act states that:

The titleholder must, at all times while the title is in force, maintain financial assurance sufficient to give the titleholder the capacity to meet costs, expenses and liabilities arising in connection with or as result of:

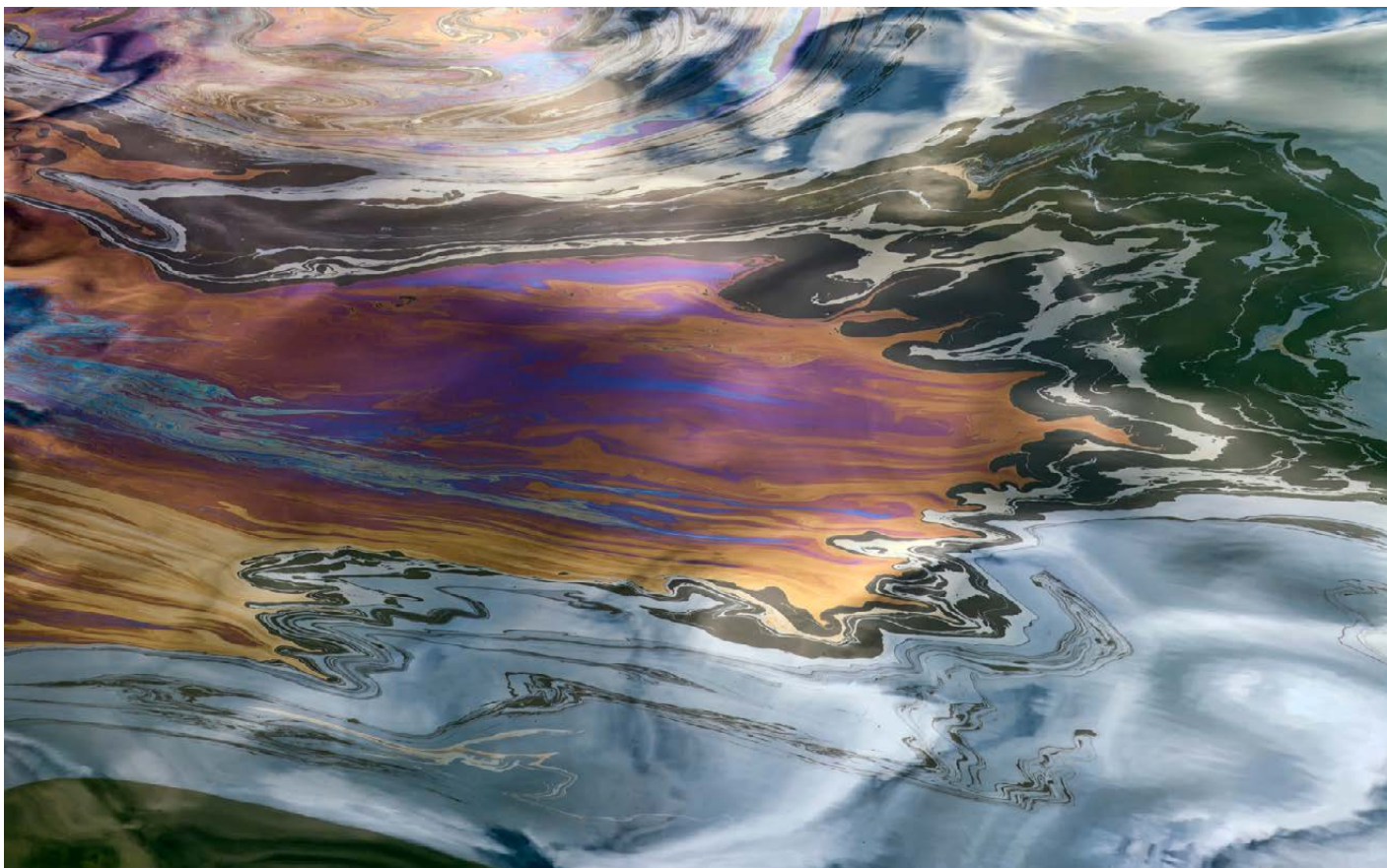
- a) the carrying out of the petroleum activity; or
- b) the doing of any other thing for the purposes of the petroleum activity; or
- c) complying (or failing to comply) with a requirement under this Act, or a legislative instrument under this Act, in relation to the petroleum activity.

Subsection 571(3) introduces a compliance function via the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009 (the Environment Regulations).

The Department of Industry is finalising draft amendments to the Environment Regulations, which are expected to require titleholders to demonstrate to NOPSEMA compliance with the financial assurance requirements as a pre-condition to acceptance of an environment plan for a petroleum activity.

The Department of Industry has conducted preliminary information sessions in Perth and Melbourne about the changes, including the likely delay in commencement to allow titleholders and NOPSEMA to prepare. Titleholders are encouraged to follow the progress of policy implementation and regulatory drafting by checking information about the amendments on the Department of Industry's [website](#). (A link is available on NOPSEMA's homepage nopsema.gov.au)

Once the Regulations are finalised, NOPSEMA will issue draft guidance for consultation and will engage with titleholders on the new process to demonstrate compliance, prior to commencement of the amended Environment Regulations. Titleholders wishing to receive information regarding NOPSEMA's role in administering financial assurance requirements should register at financialassurance@nopsema.gov.au.



Reportable environmental incidents

NOPSEMA is aware that some environmental incidents are not being reported by operators. In NOPSEMA's first year of collecting information on environmental incidents, inspections showed that the level of reporting to NOPSEMA by operators has been variable. This may reflect a relative lack of awareness by some organisations about their environmental reporting obligations.

Operators of petroleum activities have duties under regulations 26, 26A, 26AA and 26B of the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009 to notify and report environmental incidents to NOPSEMA.

A reportable incident is described under subregulation 4(1) as "an incident relating to the activity that has caused, or has the potential to cause, moderate to significant environmental damage". The potential for an incident to cause this damage is determined by the operator during the preparation of an environment plan (EP). Near-misses, where the outcome could have caused a moderate to significant environmental risk, are also considered reportable. An EP should contain clear definitions of what is considered to be a reportable incident for a particular activity.

Failure to report or notify NOPSEMA under the Environment Regulations is an offence of strict liability; therefore operators should ensure that each employee or contractor working on, or in connection with, the activity is aware of his or her responsibilities in relation to the EP. These responsibilities include when and how to notify and report environmental incidents to NOPSEMA.

For further guidance operators should refer to the NOPSEMA guidance note on 'Notification and Reporting of Environmental Incidents.' To access this guidance note, visit the 'Notification and Reporting' page under the 'Environmental Management' tab at nopsema.gov.au.



Testing of safety critical equipment

During a number of planned inspections, NOPSEMA OHS inspectors have identified instances where facility operators have inappropriately recorded unsuccessful tests of safety critical equipment (SCE) as 'successful', following remedial maintenance.

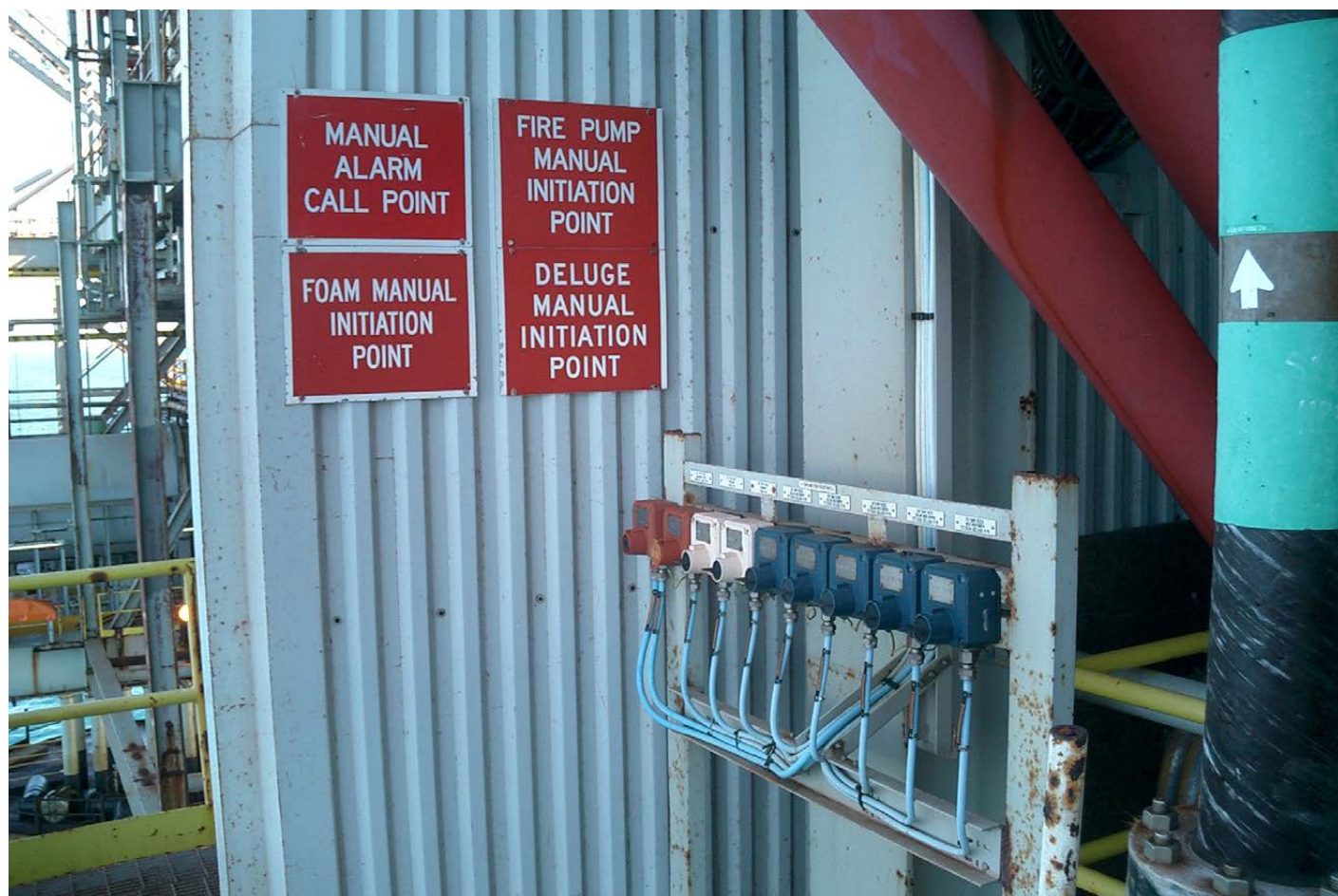
Examples of unsuccessful SCE tests recorded as successful have included:

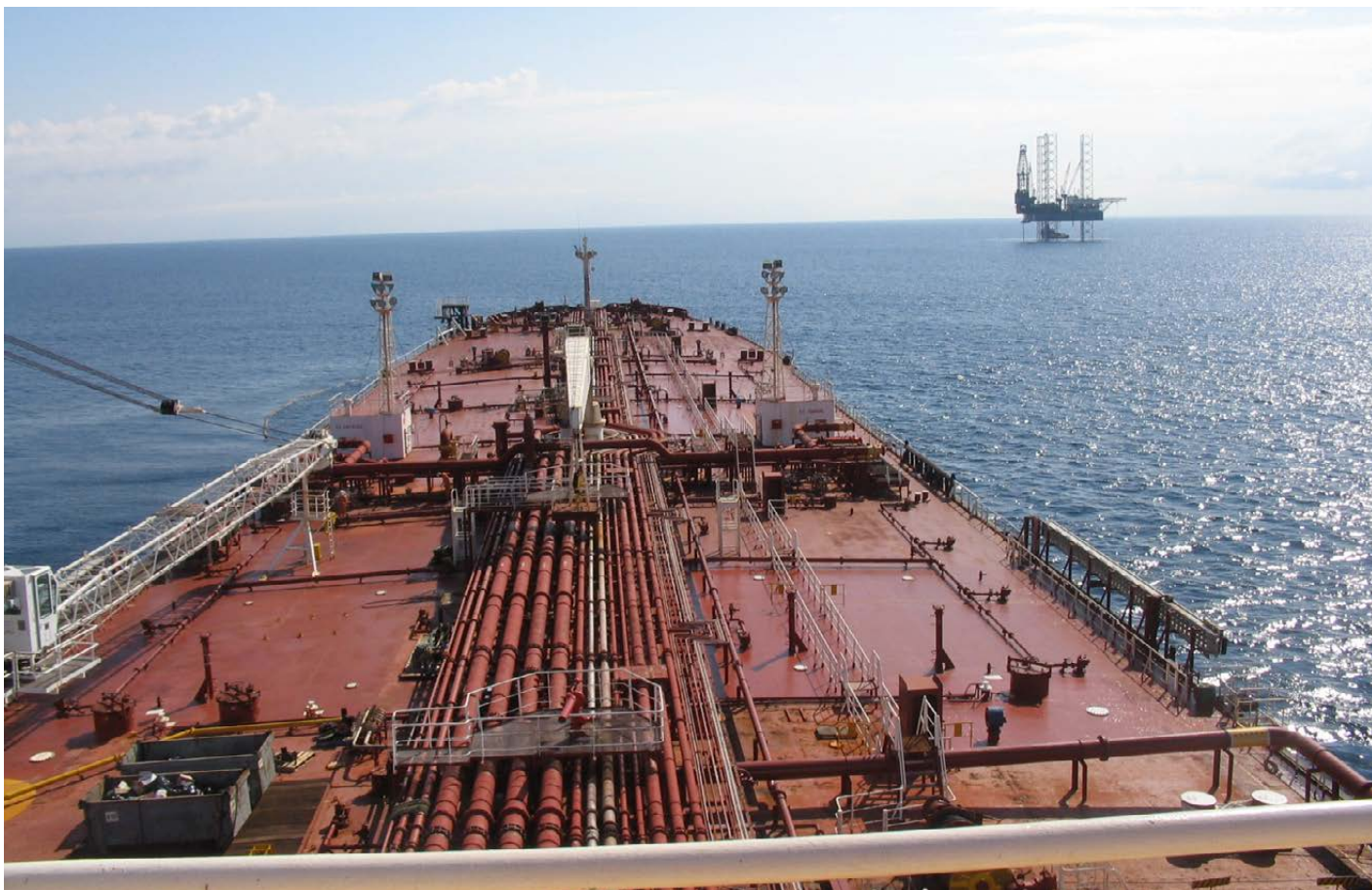
- Heating, ventilation and air conditioning dampers which, when tested, were found to be sticking and not closing. Maintenance was then completed on the dampers and the test run again. The dampers closed and the operator recorded the test as successful.
- A firewater deluge system which, when tested, did not achieve sufficient coverage. The system was flushed out and tested again, but coverage was still insufficient so the nozzles were removed and the test run again. In the third test, sufficient coverage was provided and the operator recorded the test as successful.
- A riser emergency shutdown valve was slow in closing. The valve was greased and tested again. This time the valve closed within the required time and the test was recorded as successful.

Operators should be aware that the failure of a piece of safety critical equipment to perform on demand is

often notifiable and reportable to NOPSEMA under Clause 82 of Schedule 3 to the *Offshore Petroleum and Greenhouse Gas Storage Act 2006*. An interpretation of what constitutes a dangerous occurrence is described in regulation 2.41 of the Offshore Petroleum and Greenhouse Gas Storage (Safety) Regulations 2009. If an item is required to perform a safety-critical task in an emergency, and it fails to perform that task on the first attempt, then the outcome should be recorded as a failure.

The recording of unsuccessful tests as successful has the potential to mask valuable information about the suitability of the current maintenance regime. When equipment fails to meet its performance standard on the first test, this generally indicates that changes are required in relation to the maintenance tasks, frequency, or both. The failure of a piece of SCE should lead to a review of the maintenance regime for that and other similarly-maintained equipment.





Myths and misconceptions

MYTH: *We don't need radar, we have AIS.*

The collision of a sea going vessel with a fixed or floating offshore production facility is a well-recognised major accident event (MAE) in the offshore petroleum industry. Some of the controls available to reduce the risk of this MAE, including the use of radar and an automatic identification system (AIS), may not be well understood by all facility operators.

One of the main strengths of radar is that it relies only on the radar owner, rather than another party's systems. If it is fit for purpose and well maintained it should be able to detect vessels that could threaten the facility with enough time for appropriate action to be taken. Radar's coverage can be affected by a number of factors including adverse weather conditions, its location on a facility causing blind spots and if it needs to be turned off at any time to protect the safety of people who may be working in the vicinity of the radar system.

An AIS is a VHF radio-based communication system that is carried on vessels as required by the international convention for the safety of life at sea (SOLAS). It works by exchanging name, location and heading data over

a radio channel. AIS requires both parties to have functioning equipment, therefore, if the equipment on an errant vessel has failed or is faulty then a facility using AIS alone will either fail to detect the vessel or may receive misleading information. Unlike radar, AIS is less likely to be affected by blind spots and weather conditions.

Operators have a duty under paragraph 9(2)(e) of Schedule 3 to the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* to take all reasonably practicable steps to implement and maintain appropriate procedures and equipment for the control of, and response to, emergencies at the facility. Where the collision avoidance systems have been identified as appropriate for use on a facility, it is considered good practice to utilise both technologies together to reduce the risk of a MAE, where practicable, given the particular strengths and weaknesses of radar and AIS.

For more information about radar and AIS, operators may refer to the UK HSE's research report '[Assessment of the benefits to the offshore industry from new technology and operating practices used in the shipping industry for managing collision risk.](#)'

Reducing workers' exposure to drilling fluids

Following a number of recent inspections at mobile offshore drilling units (MODU), NOPSEMA OHS inspectors made several recommendations to facility operators regarding the potential for workforce exposure to drilling fluids. These recommendations were aimed at raising the awareness of facility operators regarding their responsibilities to take all reasonably practicable steps to protect members of the workforce from any ill-effects from contact with drilling fluids.

The International Association of Oil and Gas Producers guide to '[Drilling fluids and health risk management](#)' describes the most frequent reported effect of dermal exposure to drilling fluids as skin irritation or contact dermatitis.

Contact dermatitis is one of the most common chemical-induced occupational illnesses, and ranks first of all occupational diseases in many countries. Safe Work Australia has named contact dermatitis one of six priority work-related disorders for focus in its '[Australian Work Health and Safety Strategy 2012-2022](#)'. This is based on the severity of consequences for workers, the number of workers estimated to be affected, and the existence of known preventative controls.



Workers can potentially be exposed to drilling fluids while working on a MODU through contact with the skin or eyes. Exposure can also occur if the drilling fluids become airborne and are inhaled, for example, when shale shakers are being cleaned using high-pressure equipment, and through oral exposure where contaminated hands are used to handle food. Symptoms and severity of the condition vary depending on the type and length of exposure to drilling fluid as well as the susceptibility of the individual worker.

Reducing exposure to drilling fluids through use of control measures reduces the risk of these injuries occurring. Provision of training and appropriate supervision of work, in accordance with paragraph 9(2)(f) of Schedule 3 to the *Offshore Petroleum and Greenhouse Gas Storage Act 2006*, will raise workforce awareness of the hazards associated with exposure to drilling fluids and help promote safe work practices. The OGP guidance lists various risk control measures that should be considered to reduce the risk of occupational contact dermatitis.

Agreement on 'one stop shop' for offshore petroleum environmental assessments

The Minister for Industry, the Minister for the Environment and the CEO of NOPSEMA have signed an agreement to deliver a 'one stop shop' approval process for offshore petroleum activities in Commonwealth waters. This would mean that only one approval process is required for petroleum activities.

The first step in this process is to undertake a strategic assessment to ensure that NOPSEMA's current environmental management authorisation processes

under the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* also meet all the regulatory requirements of the *Environment Protection and Biodiversity Conservation Act 1999*.

The strategic assessment is due to be released late in 2013. Further information and updates can be found on the Department of Industry's website via a link from NOPSEMA's homepage. Stakeholders are encouraged to register their interest in opportunities for engagement and comment by emailing offshoreenvironment@ret.gov.au. NOPSEMA will also be issuing updates on this and other environmental matters through its [email subscription service](#).

Activity and performance

As at 31 October 2013

Disclaimer: Data presented here may vary as further information becomes available.

Assessments

ASSESSMENTS SUBMITTED		2013		
Assessment type	Subtype	Aug	Sep	Oct
Diving start up notice	Not applicable	0	2	3
Environment plan	New	4	9	7
	Revision	6	5	5
PSZ application	New	0	0	1
Safety case	New	3	1	1
	Revision	8	5	6
Scope of validation	Not applicable	3	3	4
Well activity application	Not applicable	3	2	6
Well operations management plan	New	2	0	5
	Variation	1	1	2
TOTAL		30	28	40

ASSESSMENTS NOTIFIED AND COMPLETED		Accepted/agreed/ advised			Rejected/refused/not accepted/ declined/ recalled/returned			% Notified within time regulations		
		2013								
Assessment type	Subtype	Aug	Sep	Oct	Aug	Sep	Oct	Aug	Sep	Oct
Diving start-up notice	Not applicable	0	1	1	0	1	2	N/A	100%	100%
Environment plan	New	6	0	0	0	0	0	100%	N/A	N/A
	Revision	1	1	2	0	0	0	100%	100%	100%
Safety case	New	0	0	0	0	0	0	N/A	N/A	N/A
	Revision	5	5	1	0	1	0	100%	100%	100%
Scope of validation	Not applicable	5	2	0	0	0	0	100%	100%	N/A
Well activity application	Not applicable	10	3	3	1	0	0	100%	100%	100%
Well operations management plan	New	7	1	0	0	0	0	100%	100%	N/A
	Variation	0	1	1	0	1	0	N/A	100%	N/A
	TOTAL	34	14	8	1	3	2			

Note: In some instances, a single assessment may be submitted for multiple facilities

Assessments still in progress are not included

Inspections

Type	2012		2013									
	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
Facilities /wells /activities inspected	18	6	8	15	15	16	17	19	8	3	13	11

Note: A single inspection can comprise multiple facilities, wells or activities.

Complaints

Type	2012		2013									
	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
OHS complaints	0	0	0	2	1	0	0	0	0	0	1	1
EM complaints	0	0	0	0	1	0	0	0	0	0	0	2

Note: A number of complaints were re-categorised as 'information only'.

Injuries

Type	2012		2013									
	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
Lost time injuries (LTI >1 day)	1	1	1	1	3	1	1	0	0	1	2	Data not available
Alternative duties injuries (ADI)	7	4	4	1	2	7	4	4	3	2	4	
Medical treatment injuries (MTI)	6	2	1	3	0	4	2	2	2	1	2	
Total recordable cases (TRC)	9	6	14	7	6	5	5	12	7	4	8	

LTI incl. lost time injuries less than 3 days

Note: As reported under OPGGS(S) Regulation 2.42. (injury summaries submitted not less than 15 days after the end of each month)

Some operator reports were outstanding at the time of this publication

Enforcements

Enforcement action types	2012		2013									
	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
Improvement notice	0	3	0	1	0	2	9	4	2	3	1	2
Intent to withdraw WOMP acceptance	0	0	1	0	0	0	0	0	0	0	0	0
Prohibition notice	0	0	0	2	1	0	0	0	0	0	0	0
Request for revised SC	0	0	0	0	1	0	1	0	0	0	0	0
Request for revised EP	0	1	0	16	4	6	5	0	0	1	0	0
Intent to withdraw EP acceptance	0	0	0	0	0	0	0	0	0	0	1	0
Written advice/warning	2	0	1	0	1	2	2	4	0	1	0	0
TOTAL	2	4	2	19	7	10	17	8	2	5	2	2

Does not include directions, verbal advice/warnings or investigation-related notices (do not disturb notice or removal of plant or sample)

Note: 'Request for revised EP' data includes one request in Oct-Dec 2012 and 20 requests in Jan-March 2013 for revision to an environment plan transitioned from the former designated authorities

Incident notifications

INCIDENT TYPE		2013		
		Aug	Sep	Oct
Accidents and dangerous occurrences	Death or serious injury	1	0	0
	Incapacitation ≥ 3 days LTI	0	1	1
	Accidents total	1	1	1
	Could have caused death or serious injury	3	2	1
	Could have caused incapacitation ≥ 3 days LTI	0	2	0
	Fire or explosion	1	0	0
	Collision marine vessel and facility	0	0	1
	Uncontrolled HC release >1 300 kg	2	4	0
	Uncontrolled HC release >300 kg	0	0	0
	Uncontrolled PL release >80 12 500 L	0	1	0
	Uncontrolled PL release >12 500 L	0	0	0
	Unplanned event implement emergency response plan	9	13	17
	Damage to safety-critical equipment	13	11	6
	Other kind needing immediate investigation	3	8	4
	Well kick >50 barrels	0	0	0
	Pipeline – substantial risk of accident	0	0	0
	Pipeline – kind needing immediate investigation	0	0	0
	Pipeline – significant damage	0	0	0
	Dangerous occurrences total	31	41	29
	Accidents and dangerous occurrences total	32	42	30
Reportable environmental incidents	Hydrocarbon/petroleum fluid release	0	2	0
	Chemical release	2	0	0
	Drilling fluid/mud release	0	2	0
	Fauna incident	0	0	0
	Reportable EM incidents total	2	4	0
Recordable environmental incidents	Non HC air emissions	1	0	Data not available
	Breach of procedural control	2	2	
	Chemical spill	4	4	
	Hydrocarbon gas release/air emissions	1	6	
	Hydrocarbon spill (<80 L)	5	5	
	Solid waste discharge/dropped object	3	3	
	Other unplanned liquid discharge	1	1	
	Spill - no discharge to marine environment	1	0	
	Equipment not functioning	1	0	
	Recordable EM incidents total	19	21	
EM incidents total		21	25	0
Not reportable incidents	OHS not notifiable	1	1	0
	EM not notifiable	0	0	0
	Recordable environmental incident	0	0	0
Not reportables total		1	1	0
GRAND TOTAL		54	68	30

Note: As notified under OPGGS(S) Regulation 2.41 and OPGGS(E) Regulation 26

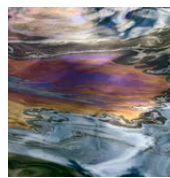
GLOSSARY OF ACRONYMS					
ATBA	Area to be avoided	HC	Hydrocarbon	PSZ	Petroleum safety zone
EM	Environmental management	OHS	Occupational health and safety	SC	Safety case
EP	Environment plan	PL	Petroleum liquid		



Schedule of events

Events listed below are those at which NOPSEMA is presenting, exhibiting or has an organisational role

- 13-14 November 2013 AELERT conference, Melbourne
- 26-27 November 2013 IChemE hazards Australasia conference, Perth



Feedback

NOPSEMA welcomes your comments and suggestions. Please direct media enquiries, requests for publications, and enquiries about NOPSEMA events to communications@nopsema.gov.au Operators and other employers are encouraged to circulate this newsletter to their workforce.

Past issues of this newsletter are available at nopsema.gov.au

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NOPSEMA has recently expanded its online subscription service. To receive the latest news and developments from Australia's national regulator for the oil and gas industry please complete the online [subscription form](#). NOPSEMA's services include news and information on environmental management, HSRs, media releases, safety alerts and the *Regulator* newsletter.

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