

**From CEO Jane Cutler**

This month we sadly note the occurrence of a number of serious incidents in the industry's international arena. The international section of this newsletter reports on some of these events.

Such a spate of incidents reinforces the need for continued vigilance in the offshore petroleum industry. Ours is a global industry and we cannot afford to ignore lessons from our overseas colleagues if we are to continuously improve safety performance.

Australian titleholders and rig operators in particular are urged to study the information and initial recommendations provided by US authorities in the wake of the Macondo incident in the Gulf of Mexico. These are relevant to our offshore industry and they are listed for you on page 6 of this newsletter.

I wish to draw your attention to the significant increase in gas releases in the last quarter. This is an indicator for a major accident event and NOPSA is working with industry to understand the causes. Key performance data for the period are provided in this newsletter (pages 3-5) and on our website.

Industry matters

NOPSA on show at APPEA Conference

Visitors to the NOPSA exhibition stand at the recent APPEA exhibition and conference in Brisbane were able to discuss issues and pose questions to NOPSA occupational health and safety inspectors on duty. Frequently asked questions covered topics such as understanding Australia's offshore petroleum safety regime, cyclone evacuation procedures and duties of NOPSA inspectors.



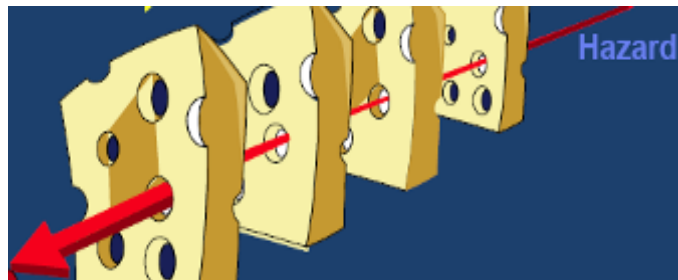
NOPSA inspector Dave Chaplin prepares to welcome visitors to the NOPSA stand at the Brisbane APPEA exhibition recently.

Swiss cheese and pyramids model safety thinking

The American Petroleum Institute (API) and the American National Standards Institute have issued [recommended practice](#) on the use of leading and lagging indicators for process safety which have relevance across a wide range of industries including upstream petroleum. These recommendations have been informed by work from other organisations including the Centre for Chemical Process Safety of the American Institute of Chemical Engineers (AIChE).

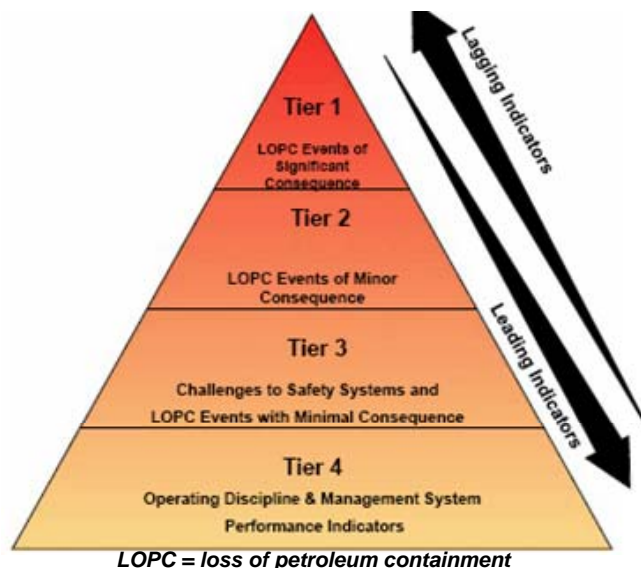
The recommendations are inspired by two well known models of accident analysis:

1. the 'Swiss cheese' model (below), originally developed by James Reason shows that safety incidents are rarely caused by a single catastrophic failure, but rather by multiple events or failures that coincide



In this model, hazards are contained by multiple protective barriers each of which may have weaknesses or "holes." When the holes align, the hazard is realised resulting in harm.

2. the adapted 'accident pyramid' model (below) shows a predictive relationship between higher and lower consequence safety events i.e. for each high consequence event, a number of precursor lower consequence events can be identified.



This model divides indicators into four tiers representing a leading and lagging continuum.

The recommendations from the API/ANSI identify four tiers of leading and lagging process safety indicators in a pyramid model useful for driving performance improvement.

Performance indicators identified in the API/ANSI recommended practice are based on the following guiding principles:

- indicators should drive process safety performance improvement and learning
- indicators should be relatively easy to implement and easily understood by all stakeholders (e.g. workers and the public)
- indicators should be statistically valid at one or more of the following levels: industry, company, and site
- statistical validity requires a consistent definition, a minimum data set size, a normalisation factor, and a relatively consistent reporting pool
- indicators should be appropriate for industry, company, or site level benchmarking.

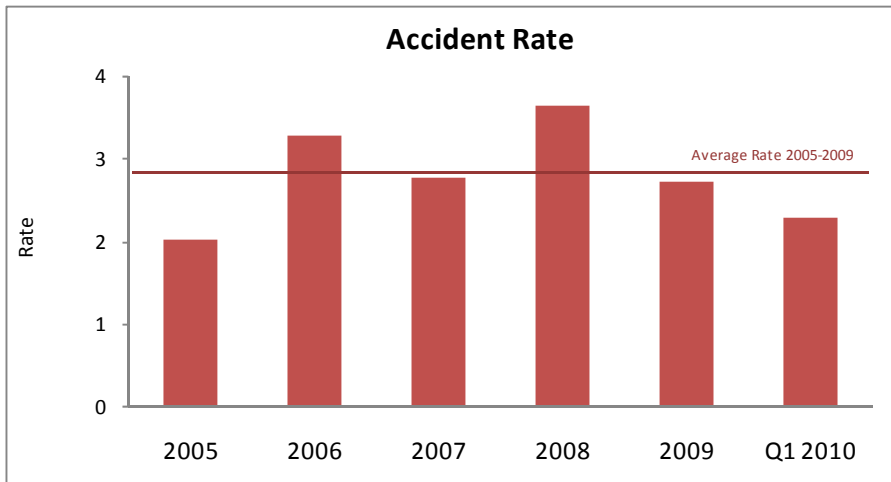
NOPSA safety case guidance note project news

Workshops have recently been held in Melbourne and Perth to consult with industry on the NOPSA safety case guidance note "[Control Measures and Performance Standards](#)". This guidance note has been updated to reflect the input from workshop participants and will be finalised and published on our website in early June.

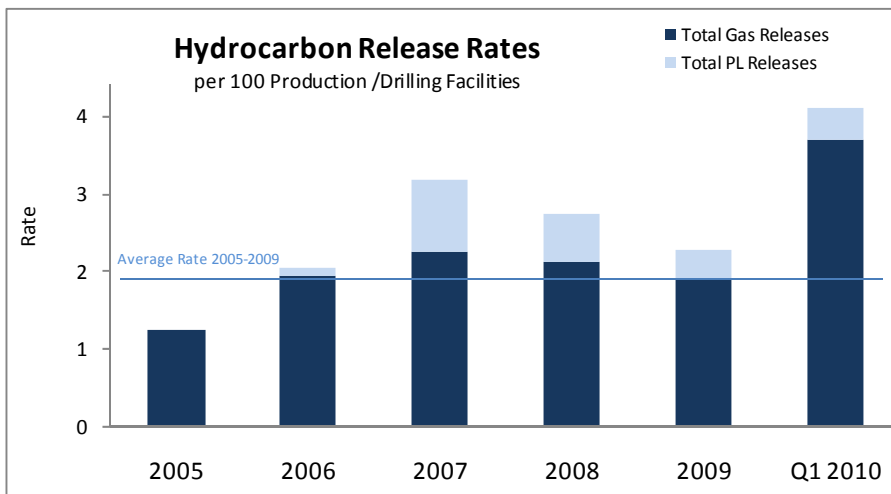
The safety case guidance note "[ALARP](#)" ([As Low As Reasonably Practicable](#)) has been drafted and will be available as a discussion document on our website in early June. NOPSA invites comment and input from all interested stakeholders via the [comments template](#) and unique safety case guidance note email address. Depending on the nature and volume of comment received through this open consultation process, industry workshops may be held later in the year. The draft document will be open for comment until July 9.

Quarterly industry figures show improving signs in accident data, but increase in gas releases

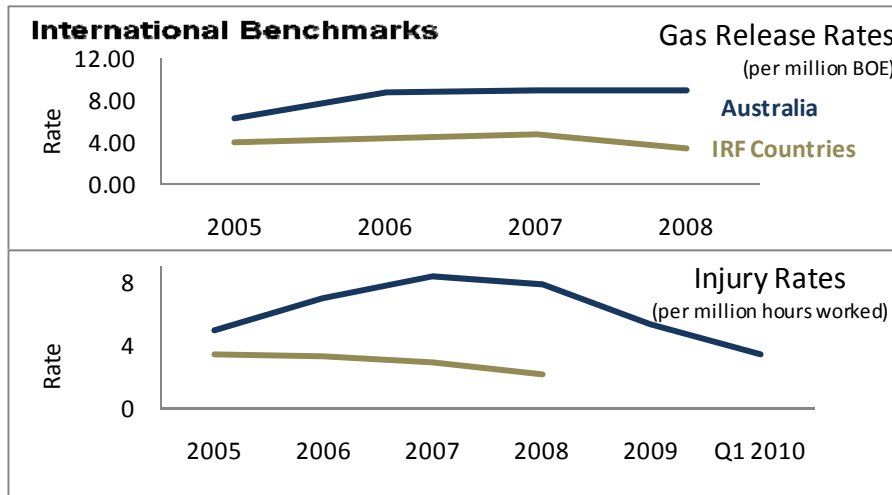
The first-quarter data on offshore petroleum operator safety performance reported to NOPSA this year shows an encouraging decline in the accident rate (death, serious injuries and LTI ≥ 3 days) per million hours worked. Total Injury rates per million hours worked, when compared with average rates supplied by global regulators, also show a steady decline since 2007. A [summary of the key performance data](#) for the period to March 31 is now available on our website.



The current accident rate for the first quarter of 2010 indicates a decrease from 2008 levels continues. (Accident includes death, serious injury and LTI ≥ 3 days only). The decreased rate is primarily due to a decrease in serious injuries, whilst LTI ≥ 3 days are relatively stable.



Gas release rates have substantially increased in the last quarter, to twice the rate reported in 2009. Current data indicates that seven releases have also occurred during the second quarter to date (April and May 2010), so this increased trend appears to be ongoing. NOPSA is working with industry to understand the causes.



The international benchmark rates are the average rates calculated from comparable data supplied by global regulators belonging to the IRF.

Gas Release Rates (per million barrels of oil equivalent - BOE) for Australian offshore petroleum facilities continue to remain above the international benchmark rates. The international benchmark decreased between 2007 and 2008, whilst Australia noted a corresponding slight increase. BOE data is as yet unavailable for 2009 and 2010.

The charts above show that injury rates for Australian offshore petroleum facilities have declined to the lowest levels recorded since 2005. Current International Regulator Forum (IRF) data are not yet available for comparison.

2010 HSR Forum fast approaching

Registrations for the Health and Safety Representatives (HSRs) Forum to be held at the Burswood Convention Centre, Perth, on August 10 will open soon. The forum provides a unique opportunity for offshore HSRs to network, develop their skills and share their own safety experiences, solutions and best practice. Highlights of the forum programme include:

- NOPSA feedback and an update on changes to legislation
- APPEA feedback and an update on the Common Safety Training Program and Stand Together for Safety
- an interactive session on communication skills
- Ben Prain from Atwood Oceanics will present 'Risk perception between the generations - a drilling contractor's perspective'
- three HSRs will share their tips on how to be an effective HSR

- The program includes practical sessions that will cover fatigue and rostering; noise and health promotion

Registrations open on June 15. More information is available from the dedicated forum [website](#). The forum will be followed by APPEA National Oil & Gas Safety Conference - Safety for Generations (11-12 August)

International

Local titleholders and drillers urged to learn from US incident

NOPSA urges Australian titleholders and rig operators to learn from the initial key safety recommendations made by US authorities in the wake of Macondo incident in the Gulf of Mexico. The recommendations issued are:

- examine all well control equipment (both surface and subsea) currently being used to ensure that it has been properly maintained and is capable of shutting in the well during emergency operations. Ensure that the Remotely Operated Vehicle hot-stabs are function-tested and are capable of actuating the Blow Out Preventor (BOP)
- review all rig drilling/casing/completion practices to ensure that well control contingencies are not compromised at any point while the BOP is installed on the wellhead
- review all emergency shutdown and dynamic positioning procedures that interface with emergency well control operations
- inspect lifesaving and firefighting equipment for compliance with federal requirements
- ensure that all crew members are familiar with emergency/firefighting equipment, as well as participate in an abandon ship drill. Operators are reminded that the review of emergency equipment and drills should be conducted after each crew change out
- exercise emergency power equipment to ensure proper operation
- ensure that all personnel involved in well operations are properly trained and capable of performing their tasks under both normal drilling and emergency well control operations.

Both the Minerals Management Service (MMS) and the US Coast Guard are conducting a joint investigation of the Macondo / Deepwater Horizon accident. The findings and lessons learned will be documented in a report that will be made public as soon as possible. Updates on the incident can be found on the [unified command website](#) and any further safety alerts will be found on the [MMS website](#).

Venezuelan MODU sinks

A semi-submersible Mobile Offshore Drilling Unit, the Aban Pearl, sank off Venezuela earlier this month. Venezuelan authorities reported that all crew members were safely evacuated and that the well being drilled at the time had been secured.

Two killed in Brazilian offshore incidents

Two crew members onboard a Mobile Offshore Drilling Unit operating in Brazilian offshore waters were killed when a lifeboat fell from its winch during maintenance work, according to industry reports. Two other crew were seriously injured in the incident.

Welding incident has warning on correct use of JSAs

The International Association of Drilling Contractors (IADC) has issued a [safety alert](#) after a welding tent ignited during work on a rig in a shipyard. The lack of a specialised job specific assessment for the task was considered a major contributor.

HSE warns on risks from cargo tank venting

The risks from hydrocarbon vapours or harmful gases resulting from cargo tank venting have been highlighted in a new [safety notice](#) from the UK Health and Safety Executive (HSE).

The notice was issued after a fire which occurred as the result of the ignition of flammable vapours from an FPSO cargo tank vent. The incident occurred during calm low-wind weather conditions, which were considered to be a contributing factor to the event. Such weather conditions reduce the effective dispersion of flammable or toxic emissions, and are significant factors for inclusion in the evaluation of the major accident hazard potential for fires, explosions or toxic exposure from such releases.

Regulatory activities

As at 28th May 2010

Assessment

The following assessment activity was undertaken in May.

May 2010	Submitted	Notified – waiting e.g.^RFFWI	Notified - Accepted / Agreed	Notified - Rejected	Stopped / Recalled	In Progress
Safety Case NEW	2					8
Safety Case REVISED	5	1	1	1		7
Diving SMS NEW				1		
Pipeline SMP NEW*						
Scope of Validation	4	1	2			5
Field Development Plan			1			
	11	2	4	2	0	20

* State waters.

^ RFFWI – Request for further written information

Inspections

Ten planned inspections were conducted in May.

Scope items covered included:

- Asbestos Management
- Contractor/Supply Chain Management
- Facility Integrity Management System
- Fatigue Management & Health Monitoring
- Fire & Explosion in Cargo Pump Room
- Temporary refuge performance standards
- Hazardous Substances
- Helicopter operations, helicopter crash at the facility.
- Hydrocarbon loss of containment - Integrity of export pipe line, risers and flowlines.
- Loss of Well Control
- Manual Handling
- Noise Management
- Personnel Transfer
- Policy Leadership and Commitments
- Joint Inspections with AMSA - management of lifeboats
- Topsides Corrosion and Erosion
- Topsides Structural Integrity

Incidents

Eighteen accident and dangerous occurrences, and two complaints were reported.

These comprised:

MAJOR INCIDENTS	No.	SIGNIFICANT INCIDENTS	No.
Accidents		Accidents	
Serious injury		Incapacitation LTI >3 days	1
Dangerous Occurrences		Dangerous Occurrences	
Could have caused death or serious injury	2	Could have caused an LTI >3 days	
Fires or explosions	3	Hydrocarbon gas releases >1 to 300 kg	2
Collision marine vessel and facility		Petroleum liquid releases >80 to 12 500 L	
Hydrocarbon gas releases >300 kg	1	Well kick >50 barrels	
Petroleum liquid releases >12 500 L		Unplanned Event - Implement ERP	4
		Damage to Safety-Critical Equipment	5
		Other needing immediate investigation	
Major Sub-total	6	Significant Sub-total	12
INCIDENTS TOTAL			18
COMPLAINTS TOTAL			2
MAY 2010 TOTAL			20

Enforcement

No enforcement actions were initiated in May.

Disclaimer: Activity and incident quantities identified here may vary as further information becomes available

Feedback

We seek your comments and ideas on offshore health and safety regulation, NOPSA's performance or this newsletter. Please send us feedback to: publications@nopsa.gov.au.

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