



From CEO Jane Cutler

On March 23 it will be five years since the Texas City Refinery fire and explosion killed 15 people and injured 180 in the United States. It is timely to pause and reflect to ask ourselves what lessons we have taken from Texas City and whether enough has been done to embed these learnings in the way operators function here in Australia.

Two clear messages from Texas City are:

- Loss of containment of hydrocarbons causes harm, and
- Loss of containment is prevented by effective barriers (physical devices and instrumentation) and control measures (policies, procedures, supervision, monitoring and communication).

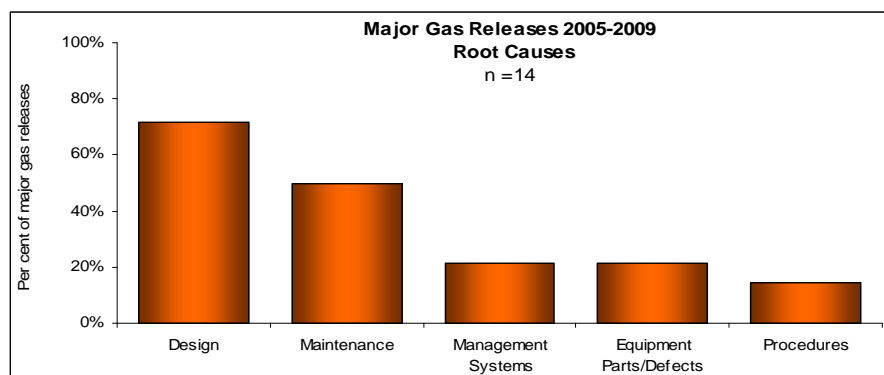
We need to remember such serious events so that we can work to make sure these tragedies never happen again. Process safety needs a high level of focus as the potential for major incidents is ever-present in our high hazard industry.

NOPSA pays very close attention to the gas release data it receives from industry as loss of containment of hydrocarbons can be a precursor to a major accident event. The data shows that design was a primary root cause in the majority of releases with maintenance a root cause in half the gas releases in the last five years.

This information from the data collected by NOPSA gives food for thought as we all concentrate on the central issue of keeping hydrocarbons securely contained.

Industry matters

Design problems at root of most major gas releases



Data collected from the Australian offshore petroleum industry by NOPSA over a five year period shows that a majority of all major gas releases had equipment design problems reported as a primary root cause. Gas releases are recognised as precursors to major accident events, highlighting the importance of safety management at the design stage of a facility.

Alert issued on gangway failure



The gangway collapsed into the sea

NOPSA has issued a [safety alert](#) on a gangway failure that could have caused serious serious injuries if people had been using the walkway at the time it collapsed. The purpose-built modular gangway for jacket access from a construction barge parted at the jacket end and fell into the sea.

It was determined that a failure occurred in the vertical pin of the gimbaled joint which provided support at the platform jacket end.

Key lessons from this incident include that fabrication yard quality assurance must include a thorough inspection to ensure design and specifications have been met and that secondary fall protection arrangements must be properly engineered and specified in the installation, operation and maintenance procedures for gangways. It is the legal responsibility of the operator to implement and maintain a safe system of work for any plant and equipment.

Reporting of incidents is mandatory

Operators of offshore petroleum facilities are required to notify NOPSA as soon as practicable after any accident or dangerous occurrence at or near the facility.

“As soon as practicable” means notifying NOPSA when able to do so without compromising the incident response. A [guideline](#) on NOPSA’s website provides details of the types of events that are to be notified and the information that is required when making the notification and submitting the subsequent written report.

Forum to focus on priorities for offshore HSRs

Safety culture, fitness for work, issue resolution, fatigue and risk perception across generations are some of the topics to be addressed in the [2010 HSR Forum](#) on August 10 at the Burswood Convention Centre, Perth. The forum is organised by the Australian Petroleum Production and Exploration Association (APPEA) in conjunction with NOPSA.

Calls for papers to be delivered at the forum are now open and abstracts will be accepted until March 12. Further information is available on the APPEA website. Registrations for the forum open in May. The APPEA Safety Conference will be held following the forum. This will feature exhibition space for display of services and products.



Participants at last year's HSR Forum enjoyed a diverse range of presentations and networking sessions.

Operators must choose risk control solutions to meet safety goals

NOPSA inspectors are frequently asked what minimum standards apply to safety-related equipment in Australia's offshore petroleum industry. The answer is that very few standards are prescribed in the safety legislation. This is because the occupational health and safety arrangements in the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* (OPGGSA) are for a performance-based regime where safety solutions are not rigidly prescribed – rather the safety laws set broad safety goals and the offshore operator has flexibility in how it meets these.

It is the operator who specifies the risk control solutions that will be used to meet a safety performance goal. This approach allows for flexibility in matching controls to risk so that rapid technological change can be accommodated. Standards which are appropriate to a particular facility and its operations must be specified in the safety case. Except for some limited examples concerning noise and hazardous substances, the Act does not prescribe specific occupational health and safety standards. A leaflet with frequently asked questions on this topic [Prescription and Standards](#) is available on the NOPSA website or contact publications@nopsa.gov.au for a copy.

Inquiry hearings on Montara incident about to get underway

The Commission of Inquiry into the uncontrolled release of oil and gas from the Montara wellhead Platform in the Timor Sea intends to conduct [public hearings](#) from March 15 in Canberra.

The main issues the Inquiry intends to seek evidence on during these public hearings relate to:

- the cause of the uncontrolled release
- the performance of relevant persons under the regulatory regime
- the adequacy and effectiveness of the Northern Territory Department of Regional Development, Primary Industry, Fisheries and Resources' (now the Department of Resources) monitoring and enforcement of PTTEP (Ashmore and Cartier) Australia Pty Ltd's well construction activities

If practicable, the Inquiry will also seek evidence relating to the extent of the spread of the uncontrolled release; and the adequacy of the National Oil Spill Plan (including the use of chemical dispersants in responding to the uncontrolled release.

NOPSA is currently undertaking an investigation into the Montara uncontrolled hydrocarbon release to determine whether any occupational health and safety laws have been contravened by the operators of the Montara wellhead platform and the West Atlas drilling unit. Subject to the findings NOPSA will provide a brief of evidence to the Commonwealth Director of Public Prosecutions for its consideration.

How well do you understand roles and responsibilities in offshore safety?

NOPSA is frequently called upon to clarify roles and responsibilities under the laws which govern Australia's approach to occupational health and safety on offshore petroleum facilities.

It is the facility operator which has the principal responsibility for ensuring that its facility is operated safely and maintained in a safe condition. NOPSA, as the safety regulator, does not have responsibility for making direct decisions on day-to-day running of offshore facilities.

NOPSA's role is to monitor the effectiveness of operator systems by verification during NOPSA inspections. NOPSA will take [enforcement](#) action if the operator's systems and performance do not meet legal requirements and the arrangements as set out in the operator's safety case.

Better data capture can bring benefits

An important way of improving safety is to understand the nature of any injuries that occur and to be able to collect this data in a classification system that allows for meaningful analysis of patterns.

A number of offshore industry employers have chosen to use the *Type of Occurrence Classification System* (TOOCS) which was originally developed for use in coding details of workers compensation cases. It is used by Safe Work Australia for the national data set which influences prevention efforts for major injury and diseases.

The design of TOOCS allows the collection of focused and meaningful information through a coding system that provides comprehensive descriptions of injuries or diseases and detailed 'includes' and 'excludes' statements which allow for accurate coding and minimises the use of 'dump codes'.

TOOCS allows for the addition of highly detailed codes where needed by the use of an additional digit. Operators and employers can use this option to ensure that the more common hazards and hazardous occurrences are adequately covered in their coded data. For example, the *mechanism of incident* '01 Falls from a Height' could be further broken down to '011 Falls from a height less than 3m' and '012 Falls from a height greater than 3m'.

Safety Quiz at AOG exhibition

Test your knowledge of offshore petroleum safety in our quiz, collect safety information on the requirements of the offshore petroleum occupational health and safety legislation or have an in-depth chat with one of our occupational health and safety inspectors – all this can be done at NOPSA's display booth at the Australian Oil and Gas Exhibition to be held at the Perth Convention and Exhibition Centre on March 24-26.

International

Warning on accumulation of gases in tanks and voids

An [Offshore Information Sheet](#) from the UK Health and Safety Executive (HSE) last month highlighted the need for systems to monitor and protect against the accumulation of flammable/toxic gases in ballast tanks and voids adjacent to cargo tanks on floating production and storage offtake vessel (FPSO) and floating storage unit (FSU) installations.

The provision of suitable systems for gas detection and advanced warning of hazardous accumulations is considered to represent good practice in reducing these risks to as low as reasonably practicable. These systems also give a warning of structural defects on the bulkhead between ballast and cargo tanks.

This Information Sheet noted that the International Maritime Organisation (IMO) has recognised the risks associated with the loss of containment from cargo tanks into adjacent tank areas and has via the sub committee on Fire Protection dated 16-20th February 2009 recommended amendments to the Safety of Life at Sea Convention (SOLAS) chapter II-2 and the International Fire Safety System (FSS) Code be drafted and submitted to the Maritime Safety Committee (MSC) for approval and adoption.

The recommendations issued by the sub committee are as follows: "SOLAS regulation II-2/4.5.7 to require fixed hydrocarbon gas detection systems to be installed in ballast tanks and void spaces adjacent to cargo tanks located outside the oil tanker's block area, such as fore peak tanks and a new draft chapter 16 to the FSS code, to give the specifications for fixed hydrocarbon gas detection systems."

Update on water deluge systems

The UK Health and Safety Executive (HSE) also issued an [information sheet](#) with guidance on water deluge systems, their testing requirements, data recording in relation to performance standards, and new knowledge of fire attack scenarios. The HSE notes that deluge testing offshore is generally being carried out as required. However some flow measurements are not being recorded effectively and data recorded is not being analysed to provide the best information for use in optimising maintenance and performance.

Canadian board orders immediate changes in offshore helicopter practices

The Canada - Newfoundland and Labrador Offshore Petroleum Board has instituted temporary restrictions in helicopter flight procedures arising from interim findings of the [inquiry](#) into the tragic helicopter crash that occurred offshore Newfoundland Labrador on 12 March 2009.

The [directives](#) from the Canada-Newfoundland and Labrador Offshore Petroleum Board include a temporary halt to night flights to offshore installations until a fully equipped emergency response helicopter is available and faster first-response helicopter search and rescue can be achieved by industry.

Personal locator beacons to be reintroduced to the UK North Sea

Personal locator beacons have this month been re-introduced to United Kingdom North Sea helicopter flights following their earlier withdrawal when it was found that their signals had interfered with search and rescue equipment.

The new type of beacon reintroduced is the Sea Marshall AU9-HT which has been extensively tested for inadvertent operation and interference with helicopter systems. A Helicopter Task Group has managed the re-introduction and industry has collectively agreed to make PLBs standard issue for all UK oil and gas helicopter flights.

PSA releases annual safety magazine

[*Safety – Status and Signals*](#), an annual magazine which focuses on safety issues and challenges for the offshore petroleum industry has been released by the Norwegian Petroleum Safety Authority (PSA). Feature articles explore themes including management and risk, developments in carbon capture and storage as well as breakdown of safety barriers.

New and Emerging Risks in Occupational Safety and Health

The European Agency for Safety and Health at Work (EU-OSHA) has released [Outlook 1: New and Emerging Risks in Occupational Safety and Health](#) (February 2010), which predicts "future trends of relevance to occupational safety and health, and offers an overview of the work of the European Risk Observatory on new and emerging workplace risks and their prevention". The report investigates the changing age profile of the workforce, the spread of new technologies, and "a reduction in the importance of economic sectors that previously dominated, such as industry and mining".

Regulatory activities

As at 24 February 2010

Assessment

The following assessment activity was undertaken in February

February 2010	Submitted	Notified - incomplete	Accepted / Agreed	Rejected	Stopped / Recalled	In Progress
Assessment Type						
Safety Case NEW						5
Safety Case REVISED	3		2		1	6
Diving SMS REVISED	1					1
Pipeline SMP REVISED*			2			
Scope of Validation	4		2			4
	8	0	6	0	1	16

* Pipeline SMPs currently only apply in state waters.

Inspections

15 facilities were inspected in February. Scope items covered included:

- loss of containment
- emergency response management
- noise management
- hazardous substances
- contractor management

Incidents and complaints

28 incidents and two complaints were received from industry.

The incidents comprised the following:

MAJOR INCIDENTS	No.	SIGNIFICANT INCIDENTS	No.
Accidents		Accidents	
Death or serious injury		Incapacitation LTI >3 days	1
Dangerous Occurrences		Dangerous Occurrences	
Could have caused death or serious injury	4	Could have caused an LTI >3 days	2
Fires or explosions		Hydrocarbon gas releases - 1 to 300 kg	2
Collision marine vessel and facility	1	Petroleum liquid releases - 80 to 12 500 L	
Hydrocarbon gas releases - >300 kg		Well kick >50 barrels	1
Petroleum liquid releases - >12 500 L		Unplanned Event - Implement ERP	9
		Damage to Safety-Critical Equipment	6
		Other needing immediate investigation	2
Major Sub-total	5	Significant Sub-total	23
			FEBRUARY 2010 TOTAL
			28

Enforcement

There was one written advice / warning issued for:

- inadequate root cause analysis
- insufficient action to prevent recurrence

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

Subscribe

[Past issues of this newsletter](#) are available from the NOPSA website.

Operators and other employers are encouraged to circulate this newsletter to their workforce.

Please add your details to our [distribution list](#) to receive future copies of this newsletter (indicate your first name, last name and position/company if applicable).