NOPSA NEWSLETTER

Issue 82 October 2009

From CEO Jane Cutler

The safety case, a risk management framework for an offshore facility, remains a key mechanism for operators to demonstrate how they are fulfilling their health and safety responsibilities to people working with them.

A safety case must be accepted by NOPSA before offshore activities connected with a facility can begin.

Therefore preparation of a safety case is an important task for operators. Although NOPSA provides detailed guidelines on how to construct an acceptable case, there are still safety cases that are rejected and must be revised and re-submitted.

The safety case should involve a considered and thoughtful analysis of the hazards and risks associated with the particulars of a facility and how the operator will manage them.

Regardless of the methods used, operators must clearly understand and describe any uncertainty present in the risk assessment. The key to understanding the uncertainty and managing it in the context of the safety case is to:

- record any assumptions made and the basis for the assumption
- explicitly recognise where the main gaps or uncertainties exist
- seek to reduce the level of uncertainty by testing assumptions, conducting more detailed studies

The higher level of detail required in a safety case risk assessment where there is uncertainty follows the ALARP (As Low As Reasonably Practicable) principle of the health and safety regime. Under this principle, where the risk is high, or where knowledge is uncertain, more measures would be expected to be adopted by the operator to reduce the level of risk.

Industry matters

Montara investigation continuing

NOPSA's investigation into the safety-related aspects of the uncontrolled hydrocarbon release from the Montara wellhead platform is continuing. Its inspectors have conducted interviews and taken witness statements from relevant personnel and are conducting an analysis of reports and documentation from the facilities' operators.

The investigation will seek to determine whether any breach of Schedule 3 of the *Offshore Petroleum and Greenhouse Gas Storage Act* 2006 has occurred and enable the dissemination of any lessons that could be of benefit to the industry.

Concern over state of electrical equipment

A new safety alert[1] issued by NOPSA highlights inappropriate or poorly maintained electrical equipment seen on inspections of offshore facilities. Such equipment is a potential source of ignition which could lead to a fire or explosion if hydrocarbons or other flammable materials were present.

Typical problems seen include:

- incorrectly rated electrical equipment for the location
- corrosion of equipment (eg motors, instruments, junction boxes)
- non- rated portable equipment in hazardous areas
- electrical wiring not properly terminated and, in some cases, still 'live'

Most of the safety issues identified have occurred on ageing facilities where maintenance is lacking. However, there have been some instances of incorrectly rated hazardous area electrical equipment being installed in hazardous zones on newer facilities.

Electrical equipment used in hazardous areas should receive regular specialist inspection, maintenance and re-certification.

NOPSA has recently delivered a range of enforcement actions to operators of offshore facilities for defects in the condition of electrical equipment that could have increased the risk to health and safety. The Australian and international standards for electrical equipment in hazardous areas must be specified in the safety case for the facility.

Examples of photos taken during NOPSA inspections. Corroded junction box on pump motor (left). Poorly maintained light fitting in process area (right).

Potential danger from tensioner wire failures

Photo from a recent incident on a facility in Australian waters

NOPSA has received a range of reports recently involving tensioner wire failure. As can be seen from the photograph, above, when the wire rope parts it can be like an explosion and can pose a hazard to nearby personnel. Also, the sudden release of the tensioner load can cause subsequent tensioner failure if the unit is not properly maintained as described in a previous safety alert[2] issued by NOPSA.

A key factor which has been noted by operators in analysis of these incidents includes the need for wire rope fatigue management to take into account local 'met-ocean' conditions.

Some actions taken by operators after these incidents include:

- developing a strategy for determining useable life, including destructive testing
- immediate inspection and replacement of wire rope on all other tensioners
- changing from a slip and cut programme to a fixed length programme.

NOPSA implements annual plan themes

The focus areas outlined in NOPSA's 2009-10 annual operating plan are:

- process safety leadership in the prevention of major accident events
- asset integrity
- contractor management
- emergency response

NOPSA activity in the first focus area, process safety leadership in the prevention of major accident events, will consist of two surveys – one directed towards the offshore workforce, and the other directed toward onshore management.

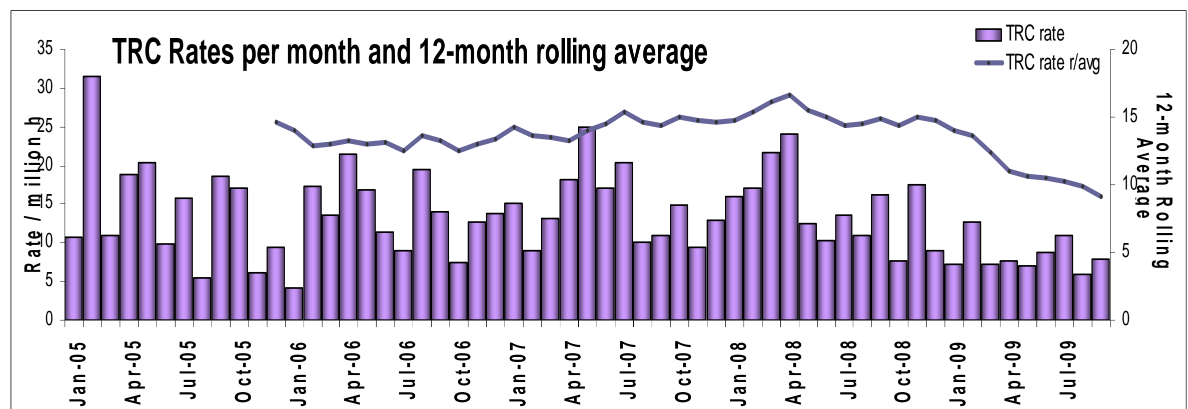
The process safety culture survey will be similar to that used by BP after the Baker Panel inquiry into the Texas City incident in 2005.

The second survey aims to gather information on the operator's organisational structure and behaviour around process safety leadership and is designed to be completed by the CEO or the most senior person responsible for offshore operations.

The results of the surveys will be collated and shared to provide information on progress in building process safety culture.

Quarterly data results show decrease in injury rates

Quarterly industry data compiled by NOPSA indicates a decrease in recordable injury rates and lost time injuries despite an increase in total hours worked offshore. The data[3] is available on our website.



Safety case guidance note project progresses

Workshops held by NOPSA in Perth and Melbourne to consult with industry on a range of topics associated with formal Safety Assessment have proved successful. The workshops covered 'Hazard Identification' and 'Risk Assessment' and were attended by a wide range of industry participants who provided constructive input on the draft guidance note material and positive feedback on the consultation process.

The guidance note *Hazard Identification*[4] has now been published and is available on our website. Work is progressing on the 'Risk Assessment' guidance note which is planned to be published soon. Further workshops will be held early next year on more guidance note topics including supporting safety studies, control measures and performance standards, and ALARP (As Low As Reasonably Practicable). You are encouraged to check the schedule of workshops planned on our website under the projects[5] link.

Baker Report – Recommendation 8

The Baker Report, produced after a devastating process accident at the BP Texas City refinery in 2005, looks at safety culture and contains valuable lessons for industry today. The report called on the operator to give process safety the same priority it had historically given to personal safety and environmental performance. Ten milestone recommendations were made by the Baker Report. Each recommendation is examined in a separate issue of this newsletter.

Recommendation 8: **Process safety auditing**: *Establish and implement an effective system to audit process safety performance*

The auditors should be technically knowledgeable and properly trained. They should have substantial experience in the various elements of process safety management, refining technology, maintenance, and operations. Periodically, independent audit teams should be used. Timely verification of remedial measures should be also completed by personnel independent of the auditing team.

Release of report into NOPSA cost recovery process

A new report into NOPSA cost recovery arrangements has been released by the Department of Resources and Energy (RET). The report[6] has found the current cost recovery arrangements remain applicable and that the service provided by NOPSA meets the test of applicable Australian government guidelines.

Key recommendations include adjustment of facility ratings to better align levies with the regulatory oversight provided and addressing the reduction of the accumulated retained surplus.

The report recommends that RET puts in place a process to review the unit values for the levy on a yearly basis to enable adjustments upwards or downwards to better reflect NOPSA's work plan.

International

Report looks at collision between vessel and facility

The Norwegian Safety Authority (PSA) has released a report[7] into a collision between a well stimulation vessel and an unmanned water injection facility on the Ekofisk field that occurred on June 8.

The incident was categorised as major because it endangered the integrity of a facility and could have caused death or serious personal injury to several people. There was significant damage to both the facility and the vessel and the PSA highlighted deficiencies in compliance with regulatory requirements by the company involved.

Dropped object had potential to cause injury

A recent safety alert issued by the International Association of Drilling Contractors[8] (IADC) highlights a dangerous incident where a spotlight weighing around 10kg fell 27 metres from a crane boom to the rig deck. There were no injuries as no one was in the area at the time of the incident. At the time the crane operator had been slewing the crane.

It was found that the secondary retention wire was not properly attached to the light. The vibration mounting was also found not to conform with the original manufacturer recommendation. The crane lights were not included in any maintenance, inspection or dropped object survey.

NOPSA annual report available

The NOPSA annual report for the period 2008-09 is now available on our website.[9] Copies of the report can be ordered from publications@nopsa.gov.au. Key information reported includes:

- NOPSA oversaw the management of health and safety at approximately 166 facilities
- Industry hours worked offshore increased by 14 per cent compared to the previous year
- There was one fatality in Australian offshore petroleum operations
- Four major gas releases occurred in 2008-09
- The 12 month rolling average rate of Lost Time Injuries showed a slight decrease
- Number of dangerous occurrences reported to NOPSA increased

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

Regulatory activities

As at 28th October 2009

Assessment

The following assessment activity was undertaken in October.

October 2009 Assessment Type	Submitted	Accepted / Agreed	Rejected	In Progress
Safety Case NEW	4	1	1	4
Safety Case REVISED	13	6	1	13
Pipeline SMP NEW				1
Pipeline SMP REVISED				
Diving SMS NEW		1		
Diving SMS REVISED				
Diving Project Plan				
Scope of Validation	6	5		8
Field Development Plan				
	23			26

Inspections

Eleven inspections were conducted during October. Topics included:

- helicopter and helideck operations
- emergency management
- asbestos management
- diving activity
- consultation with HSRs
- follow-up previous recommendations / inspections / audits / incidents

Incidents and complaints

30 incidents and one complaint were received from industry.

The incidents comprised:

MAJOR INCIDENTS	No.	SIGNIFICANT INCIDENTS	No.
Accidents		**Accidents**	
Death or serious injury	1	Incapacitation LTI >3 days	5
Dangerous Occurrences		**Dangerous Occurrences**	
Could have caused death or serious injury	4	Could have caused an LTI >3 days	6
Fires or explosions	0	Hydrocarbon gas releases - 1 to 300 kg	2
Collision marine vessel and facility	0	Petroleum liquid releases - 80 to 12 500 L	0
Hydrocarbon gas releases - >300 kg		Well kick >50 barrels	0
Petroleum liquid releases - >12 500 L		Unplanned Event - Implement ERP	5
		Damage to Safety-Critical Equipment	5
		Other needing immediate investigation	2
		Pipeline – risk of accident	0
		Pipeline – kind needing immediate investigation	0
Major Sub-total	**5**	**Significant Sub-total**	**25**
		OCTOBER 2009 TOTAL	**30**

Enforcement

There were five improvement notices issued during October relating to emergency response management:

- non-implementation of appropriate equipment
- failure to provide workforce with necessary OHS information
- non-implementation of appropriate communication equipment
- non-implementation of appropriate muster stations
- training not adequately provided

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

Subscribe

Past issues of this newsletter[10] 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[11] to receive future copies of this newsletter (indicate your first name, last name and position/company if applicable).

Find out more

[1] http://www.nopsa.gov.au/alert/Alert33.pdf

[2] http://www.nopsa.gov.au/alert/alert25.asp

[3] http://www.nopsa.gov.au/document/Presentation%20-%20Website%20KPI%20Quarterly%20Industry%20Report%20-%20September%202009.pdf

[4] http://www.nopsa.gov.au/document/N-04300-GN0107%20-%20Hazard%20Identification.pdf

[5] http://www.nopsa.gov.au/projects.asp

[6] http://www.nopsa.gov.au/document/NOPSA%20Cost%20Recovery%20Report%202008-2009.pdf

[7] http://www.ptil.no/news/investigation-report-following-collision-between-big-orange-xviii-and-ekofisk-2-4-w-article5985-79.html

[8] http://www.iadc.org/alerts/2009_Alerts/SA%2009-25.pdf

[9] http://www.nopsa.gov.au/document/NOPSA_Annual_Report_2008_09.pdf

[10] http://www.nopsa.gov.au/CEO_emails/index.asp

[11] info@nopsa.gov.au