

## 171: Failure of Isolations

Summary: As residual fire water drained from joint, drop in pressure caused the fire pump to start

Incident consequences  
(potential or actual):

Cause of accident or incident:

Activity Location: Fixed Installation

Activity Type: Maintenance

Description: While changing out 3 fire water valves there was an isolation failure. After completion of a hazard identification risk assessment (HIRA) a permit was issued and the task commenced. On draining the 10" header the AQ fire pump started up, indicating isolation failure. This was rectified by switching AQ pump to manual and re-visiting the isolations.

Specific Equipment:

Lessons Learnt: 1)Effective shift handover 2)Job planning and documentation in place

Task Description:

*No details available.*

Recommendations: 1)All work to be accompanied by written workpack or jobcard 2) Isolations to be checked if job continues over shift change

Contact Details: AMEC

## 172: Crane Shackle Incident

Summary: Crane shackle utilised on lift of 39 tonnes certified for SWL of 25 tonnes.

Incident consequences  
(potential or actual):

Cause of accident or incident:

Activity Location: Supply base, warehouse, workshop, dock

Activity Type: Lifting, crane, rigging, deck operations

Description: A crane shackle was utilised on lift of 39 tonnes certified for an SWL of 25 tonnes, during a wellhead and whip frame load out.

Specific Equipment:  
Equipment:

Lessons Learnt: Crane shackle inspected visually post-lift and found to be certified for SWL 25 tonnes. All parties relevant to the lift informed and investigation launched. Crane company contacted and shackle was quarantined.

Task Description: *No details available.*

Recommendations: As per LOLER recommendations and as per work and lift plan, ensure that all equipment used is inspected and deemed fit for purpose by a competent individual prior to commencing task

Contact Details: None available

## 173: Slip - Crossing Discharge Line

Summary:	Contractor assisting with installing support for deep well pump. Slipped on congested and wet deck trying to cross discharge line. Medic attended diagnosing bruising.
Incident consequences (potential or actual):	<i>No details available.</i>
Cause of accident or incident:	<i>No details available.</i>
Activity Location:	Drilling unit
Activity Type:	Drilling, workover
Description:	Contractor assisting with installing the support for the deep well pump at the bow leg of the rig. He decided to cross the discharge line from the pump to work on the other side. The area around the leg was congested with towing gear etc. Recent rain had made the decks wet and he had decided it was safer to step over the line than work his way through the congestion on the deck. However, as he did so he slipped and fell bruising his rib cage against the pipe. Medic attended diagnosing bruising. He finished tour of duty and went on shore leave. Two weeks later he did not return and on further investigation revealed that he had gone to his own doctor and been signed off work as a result of the bruising but had not advised his employer. Investigation conducted on the rig to cover the accident and subsequently onshore to determine why he had not reported that his doctor had signed him off work, making this an Over 3 Day Injury.
Specific Equipment:	<i>No details available.</i>
Lessons Learnt:	Inadequate Housekeeping - The area was congested with towing equipment which should have been stowed

correctly. Error of Judgement - He decided it was safer to cross the line than go round it. Inadequate Assessment - He did not adequately assess the risks involving crossing the line. Inadequate Supervision - Rig supervision should have ensured that the deck working areas were kept clear. Lack of Attention/Concentration - He did not fully address the way he should get back to the other side of the line.

Task Description: *No details available.*

Recommendations: Action plan developed for the rig, based upon the recommendations from the investigation team and actions and responsibilities assigned. Employee has been counselled regarding non-reporting on his subsequent absence.

Contact Details: *No details available*

Summary: *Weld completed. Hot flux fell from weld into eye after removal of face mask. Damage to eye*

Incident consequences  
(potential or actual): *No details available.*

Cause of accident or incident: *No details available.*

Activity Location: *Support vessel eg Supply, Standby*

Activity Type: *Maintenance*

Description: *Contractor was welding as part of internal maintenance on the vessel. He completed the weld which was overhead and removed his face mask to look up to inspect the work. As he did so a piece of hot flux fell from the weld into his eye. He was flown onshore for treatment. He was diagnosed as having corneal abrasion to his right eye and was sent home to rest after treatment.*

Specific Equipment:

*PPE*

Lessons Learnt: *Error of Judgement - He thought it was safe to remove his face mask. Deviation from Procedure - He should have brushed the weld with wire brush to remove all loose particles before removing his mask. Inadequate Planning/Organisation - He did not consider all of the hazards. Lack of Training - Was aware of good welding practice but did not adhere to it.*

Task Description: *No details available.*

Recommendations: *Adher to policy and be aware of potential hazards at all times*

Contact Details: *Kerry-Anne Herson - 01483 752466*

## 174: Misuse of Tools

Summary: Contractor unable to use correct tools in congested area.  
Swung hammer deflecting off nearby flange, cracking a bone in the thumb

Incident consequences  
(potential or actual):

Cause of accident or incident:

Activity Location: Fixed Installation

Activity Type: Maintenance

Description: Contractor was installing a blind on a flange. The location was too congested to use the usual hydraulic bolt tensioning unit so he used a flogging spanner and hammer. As he swung the hammer it was deflected by a nearby flange and came down on his thumb, cracking a bone. He was sent onshore for X-ray, he then visited his own doctor and was signed off.

Specific Equipment:

*No details available.*

Lessons Learnt: Inadequate Planning/Organisation - He did not consider all that could go wrong as he deviated from the usual way of carrying out his task. Misuse of Tools - In a congested area where the hammer could be deflected he should have made provision to keep his hand out of any possible harms way. Inadequate Assessment - He did not adequately assess the risks in using the spanner and hammer. Lack of Training - Ways of limiting the risk to his hands when working in a confined location with his equipment.

Task Description:

*No details available.*

Recommendations: Little can be done about the congested working area but future risk assessments for this task will address correct bolt tensioning techniques. Contractor given additional guidance on safe use of flogging equipment.

Contact Details:     Kerry-Anne Herson 01483 752466

## 175: Injury - Trapped Finger

Summary: Bolt protruding through flange preventing cap laying flat.  
Repositioning the unit by holding one of lifting lugs.  
Trapping finger after he moved the cap

Incident consequences  
(potential or  
actual):

Cause of accident or incident:

Activity Location: Onshore terminal

Activity Type: Maintenance

Description: Contractor had loaded a heat exchanger end cap onto a pallet after painting. There was a bolt protruding through the flange which prevented the cap laying flat. He attempted to reposition the unit by holding one of the lifting lugs. As he removed the cap the bolt suddenly moved upwards through the flange trapping his left middle finger between the bolt and the lug. The fingernail and a small amount of flesh were detached from the finger. He was taken to hospital where his finger was dressed and X-rayed. Later sent to another hospital for treatment preventing infection.

Specific Equipment:

Lessons Learnt: Improper Manual Handling - Unit could have been moved using a crowbar, or even holding one of the other flanges where there was nothing to trap his finger. Inadequate Assessment - He did not consider what could happen if the bolt came free and moved upwards. Lack of Attention - He did not note that if the bolt came free it would extend all the way to the lifting eye.

Task Description: *No details available.*

Recommendations: Greater thought and planning needed to go into handling these items.

Contact Details: Kerry-Anne Herson - 01483 752466

## 176: Gas Release from Balanced Bellows Pressure Safety Valves due to 'Chattering' of PSV

Summary: Recently a gas leak occurred on an offshore gas Central Processing Facility as a consequence of the failure of the bellows in balanced bellows Pressure Safety Valves (PSVs).

Incident consequences (potential or actual): *No details available.*

Cause of accident or incident: *No details available.*

Activity Location: Fixed Installation

Activity Type: Production operations

Description: Recently a gas leak occurred on an offshore gas Central Processing Facility as a consequence of the failure of the bellows in balanced bellows Pressure Safety Valves (PSVs). All three PSVs in service on the inlet Slug Catcher from a remote field were simultaneously affected by the failure of their bellows during relief of pressure from the vessel. Each of the three  $\frac{3}{4}$ inch PSV bonnet vents exhausted directly to atmosphere and the incident resulted in approximately 235kg of gas being released in the process area, an Emergency Shutdown (ESD), pressure blowdown and a General Platform Alarm. Pressure in the Slug Catcher reached relief (65barg) during the ESD of the platform which was initiated by loss of power generation. The initiating factors and the failure of the vessel's pressure control system to adequately respond to the effects of the ESD have been addressed by the Operator but are not covered in detail by this Safety Notice. The cause of the rapid failure of all three PSV bellows when required to operate under design relief conditions has been extensively investigated.

Specific Equipment: *No details available.*

Lessons Learnt: Key lessons learned from the incident are: - Large gas releases may occur in the event of relief valve bellows failure. - HP/LP interfaces warrant special attention at the design stage. - Staggering of PSV set pressures in systems protected by multiple PSVs should be maximised within the bounds of pressure vessel codes. - Adequate margins between normal operating, alarm and trip pressures must be preserved to provide for reliable pressure control and shutdown. - Design of relief systems must consider aspects of PSV installation that influence potential for chattering at and below design relief capacities. - Performance standards for shutdown valves, in particular stroke times, must be verified and recorded against design criteria.

Task Description: *No details available.*

Recommendations: Complete Documentation for Safety Alert

Contact Details: Robert Hirst on 01224 297891

## 177: Fatality whilst using ladder

Summary:	A fatality occurred on an onshore site when an individual fell from a vertical ladder and fell through the gap between the bottom of the hooped guard and the handrail of the elevated platform at the foot of the ladder.
Incident consequences (potential or actual):	<i>No details available.</i>
Cause of accident or incident:	<i>No details available.</i>
Activity Location:	*Any Location Type
Activity Type:	*Any Activity Type
Description:	A welding supervisor fell over 9 metres to ground whilst descending from a fixed vertical hooped ladder. The ladder was located on a Heater Unit and had been in service since 1969. The welding supervisor had been carrying out routine weld inspections in preparation for a plant turnaround, prior to descending the ladder to return to ground. The supervisor lost 3 point contact with the ladder and fell backwards through an unprotected section of ladder, hitting the handrail, pivoting over it and falling to ground. This section of ladder between the top of the handrail and bottom of ladder guard hoops can be seen in the photograph below. The design and construction of the ladder and landing platform conformed with the appropriate British Standard. Site first aid and medical personnel attended the supervisor at the scene before he was taken to the local hospital where he later died.
Specific Equipment:	<i>No details available.</i>
Lessons Learnt:	Key Lessons:

1. Even when guards are in place they may not be sufficient to prevent injury
2. Height is not the only consideration when assessing risk
3. Recognised design standards do not always reduce risk to an acceptable standard (as low as reasonably practicable)
4. Risk can arise through even the most routine of activities
5. Other related ladder incidents have occurred but lessons have not been applied consistently
6. Safety rules for safe use of ladders have not been institutionalised. Greater emphasis, awareness and training needs to be given to everyday hazards, such as those identified in the use of ladders.

Task Description: *No details available.*

Recommendations: Messages:

1. Even the most routine of activities involve hazards
2. Basic occupational safety standards for older equipment should be equivalent to those expected on new plant

Contact Details: Fraser Bell 01224 834461

**Photo of a reconstruction. It does NOT show the deceased, nor necessarily his position on the ladder.**



## 178: Equipment compatibility and safe use of handtools

Summary: on a site inspection a "flapper wheel" was found to be damaged, investigation showed that the wheel had been damaged in use. It was established that the wheel was intended for use at a maximum 12,600 revolutions per minute but was being used in a tool that operated at 30,000 revolutions per minute.

Incident consequences (potential or actual): *No details available.*

Cause of accident or incident: *No details available.*

Activity Location: Onshore terminal

Activity Type: Construction, hook-up, commissioning

Description: On a site inspection a "flapper wheel" was found to be damaged. The investigation showed that the wheel had been damaged in use. The tool being used was the internal die grinder, known locally as a "pencil grinder". It was established that the wheel was intended for use at a maximum of 12,600 revolutions per minute but was being used in a tool that operated at 30,000 revolutions per minute. On this occasion the spindle of the flapper wheel was bent to almost 90 degrees. The potential for personal injury was considerable.

Specific Equipment: *No details available.*

Lessons Learnt: Too many high rated grinders (30,000 rpm+) on site compared with the number of 10,000rpm grinders and personnel not establishing the compatibility of tools with attachments.

Task Description: *No details available.*

Recommendations: Cascade incident information to the workforce through site forums and tool box talks. Reinforce the requirement for ensuring that personnel know they have the right tool for the job. Future purchasing of flapper wheels to consider the rating of equipment on site. Ensure PUWER assessments completed before use of tools.

Contact Details: AMEC

## 179: Xmas Tree Hydraulic Manifold (Lunchbox)

Summary: Pressure control equipment for a wireline intervention in a well had been rigged up and pressure tested. During this test one of tube connections failed.

Incident consequences  
(potential or  
actual):

Cause of accident or incident:

Activity Location: \*Any Location Type

Activity Type: Well services / intervention

Description: Ahead of performing a wireline intervention, the wireline pressure control equipment had been rigged up and pressure tested and the next stage of the operation included installing remote hydraulic control lines to the UMV and DHSV via the specific side outlets on the hydraulic lunchbox. The lunchbox is supplied as a complete unit with hydraulic supplies being externally made up via bulkhead connections. The DHSV line was tested to 6000psi (413barg) with a similar pressure test of 6000psi (413 barg) being applied to test the UMV line against the closed isolation valve at the lunchbox. During this test the 9/16in tube connection inside the lunchbox to the bulkhead union connection failed and the tube end extruded from the hex nut. The failure resulted in the coned-tube fitting being fully extruded from the nut moving approximately 1in. This movement caused additional strain to be applied to the adjacent hydraulic lines causing some bending. Operations were stopped and the area was made safe. The fitting at the bulkhead connection does not see pressure during normal operations. It is only pressurised when remote control or function testing is required via the side outlet.

Specific Equipment: *No details available.*

Lessons Learnt: The 'lunchbox' panel had numerous compression fitting assemblies made from different manufacturers' products where product compatibility is questionable.

Task Description: *No details available.*

Recommendations: Investigate fitting mixes within similar units and replace as necessary to ensure compatibility.

Contact Details: Jeff Dawson, HSE Advisor, 01224 836155 Alisdair Corbett, 01224 835397

## 180: Tumble Dryer type Viking VK30E 02

Summary:

Incident            *No details available.*

consequences  
(potential or  
actual):

Cause of accident    *No details available.*

or incident:

Activity Location:    \*Any Location Type

Activity Type:    Catering / hotel services

Description:    Smoke was found to be coming from one of the tumble dryers on the Schiehallion FPSO. On investigation, the dryer door was found to be lying fully open and that this had happened on a previous occasion. On opening a dryer door the drum should stop rotating and the heating element should close down. On this occasion, the drum did stop, however, the heater continued to heat causing the cables to overheat. An engineer investigated the machine and reported that it did not have a overload switch fitted, which would have shut the dryer down.

Specific            *No details available.*

Equipment:

Lessons Learnt:    As the door had opened by itself on previous occasions, near miss reports must be acted upon

Task Description:    *No details available.*

Recommendations: .Replace tumble dryers with no overload switch where practicable. Ensure door mechanisms are functioning properly Ensure all such near miss reports are closed out

Contact Details:    Neill Murray, HSE Advisor, ARAMARK

## 181: Cross Connection of Air/Hydraulic Hoses

Summary:	During a refit of equipment of the Drilling platform, a pneumatic hose was connected to a 2000-psi hydraulic supply in error. The operation was immediately stopped and the incident investigated.
Incident consequences (potential or actual):	<i>No details available.</i>
Cause of accident or incident:	<i>No details available.</i>
Activity Location:	Fixed Installation
Activity Type:	Drilling, workover
Description:	During a refit of equipment of the Drilling platform, a pneumatic hose for power elevators was connected to a 2000-psi hydraulic supply in error. The cross connection was discovered when an air exhaust line began to emit a fine oil mist in the derrick. The operation was immediately stopped and the incident investigated. No injury to personnel or damage to equipment occurred during this incident. The pneumatic and the hydraulic hoses both have identical quick disconnect fittings, which did not physically prevent them from being cross connected. There were no obvious warnings, coding or labels to identify the two different hoses. The equipment damage was assessed and the fittings were labeled as an interim measure to prevent recurrence. A design change was subsequently implemented to ensure that the fittings on the different lines were no longer compatible and hence physically impossible to cross connect in future. Checks were carried out throughout the plant to identify any similar potential problems.
Specific	<i>No details available.</i>

Equipment:

Lessons Learnt: 1. A simple design change can eliminate any possibility of cross connection. 2. If the possibility of cross connection can happen, it will happen.

Task Description: *No details available.*

Recommendations: n! 1. Clearly mark all mating connections using labels, colour coding etc to reduce potential for error. 2. Wherever practicable ensure that an engineered design fix is implemented to eliminate the potential for cross connect

Contact Details: Carol Low, 01224 835402

## 182: Incident on Gangway from Quayside to Vessel

Summary: Slip on gangway boarding vessel, resulting in fracture to heel of right foot.

Incident consequences  
(potential or actual):

Cause of accident or incident:

Activity Location: \*Any Location Type

Activity Type: \*Any Activity Type

Description: An individual was crossing a gangway, which was only very slightly declined from the quayside to the vessel, when his left foot slipped on one of the wooden struts. He was in mid stride and, to stop himself falling, put out his hands. His right foot went forwards and struck a wooden strut in front causing a fracture in his heel. He was reporting for duty at the time and the conditions were dry. He was not using the handrails provided and the gangway did not have any non-slip surfaces.

Specific Equipment:

Lessons Learnt: *No details available.*

Task Description: *No details available.*

Recommendations: Ensure all crew using gangways are made aware of this and use the handrails. That signs be posted at gangways reminding people to use the handrails. That gangways have non-slip surfaces on struts and other surfaces. That risk assessment ensures safe access and egress from place of work

Contact Details: Neill Murray HS&E Advisor, ARAMARK 01224 726940

## 183: Stability of Loads On Barrows

Summary: A 10" valve weighing 2.9 Te (photo 1) toppled over whilst being transported by barrow (photo 3) on the lower deck of the platform. No injury occurred.

Incident consequences (potential or actual): *No details available.*

Cause of accident or incident: *No details available.*

Activity Location: Fixed Installation

Activity Type: Lifting, crane, rigging, deck operations

Description: A 10" valve weighing 2.9 Tonnes (photo 1) toppled over whilst being transported by barrow (photo 3) on the lower deck of the platform. No injury occurred. Initially, the valve was being moved to its destination in a low level barrow (photo 2) when it was discovered that the low level barrow would not fit though an access hatch. The valve was then lowered through the hatch onto an alternative 6 Tonne rated barrow (photo 3), secured in place and moved along the transportation route. Towards the end of the route there is a short incline between solid deck and Kennedy grating deck. Congestion in this area led to the requirement to manoeuvre the barrow backwards and forwards to straighten it up prior to pushing it up the incline onto the grating. During this operation the right hand front wheel was on the incline while the left hand front wheel was on the solid section. The barrow handle remained within the stability limits that are marked on the barrow with red lines. However, the combination of a higher than anticipated center of gravity (due to the change of barrow) and the change in angle of the deck surface resulted in the load toppling onto the deck gratings (photo 4). PUWER Assessments and Task Risk

Assessments had been carried out but had failed to identify the potential stability problem.

Specific Equipment: *No details available.*

Lessons Learnt: 1. Walk the route and take the surface and angle of decks into consideration when planning the transportation of materials by barrow. 2. Take the center of gravity into consideration when transporting loads on barrows. 3. Recognise the potential for interaction between center of gravity and surface/angle of deck to effect stability of the load. 4. When planning transportation routes, check the structural capability of decks and use loadspreading plates on grated areas. 5. Ensure loads are adequately secured onto barrows

Task Description: *No details available.*

Recommendations: Conduct or review PUWER and Risk Assessments for all barrows on site, to capture key lesson points.

Contact Details: Colin Sutherland HSE Coordinator, BP, Bruce ext. 322

## 184: Dropped Objects

Summary: Two dropped objects occurred on Bruce due to equipment failing in service. No injuries occurred and equipment damage was minimal.

Incident consequences (potential or actual): *No details available.*

Cause of accident or incident: *No details available.*

Activity Location: \*Any Location Type

Activity Type: \*Any Activity Type

Description: The first dropped object was one of the cardinal points (wind direction indicators) from the weather vane on top of the drilling derrick. The cardinal point weighed 138g and fell 62m to the pipe deck below. Subsequent site inspections found that another cardinal point had also fallen onto the crown block walkway and a further cardinal point was in danger of falling. The immediate cause was fatigue-induced failure of the fixed legs, where they screwed into the monitoring station assembly. The equipment – Muir Matheson Potentiometer Weather Vane -had been subject to annual inspection/maintenance checks consistent with manufactures recommendations. The weather station assembly was on the derrick inspection checklist but this did not include the smaller sub components. The second dropped object occurred when the securing bracket, which holds the crane engine exhaust cap in position, parted when the crane engine was started. The cap/bracket assembly weighs 2.8 kg, fell 33.5m and deflected off scaffolding onto a walkway. No one was injured. The crane had been subject to a routine daily check prior to the incident, the checklist did not include the exhaust cap, although it was observed to be

in place at this time. The bracket was found to have corroded on the blind side from the crane operator's access areas. Exhaust caps were not included in planned maintenance regimes.

Specific Equipment:

*No details available.*

Lessons Learnt:

1. In both cases there was inadequate identification of failure modes and potential for these items to become dropped objects 2. In both cases sub components were excluded from checklists and maintenance/inspection regimes 3. In the case of the cardinal points these are only required for vendor calibration checks - removal thereafter eliminates the dropped object

Task Description:

*No details available.*

Recommendations:

1. Check for failure modes on same/similar equipment
2. Increase focus on fixed equipment as well as loose items during platform sweeps for potential dropped objects.
3. Identify and risk assess all potential dropped objects.

§ Review whether components can be eliminated completely

§ Check that components are on a maintenance/inspection regime

§ Review the need for a secondary dropped object restraint

Establishing a systematic regime covering each area of the site will facilitate this

Contact Details:

Carol Low, 01224 835402

## 185: Cargo Movement and Use of Damaged Lifting Equipment

Summary: During heavy seas, a 13`5/8" riser joint (8100 kg) broke free from its sea fastenings impacting on cargo in the close vicinity.

Incident consequences  
(potential or actual):

Cause of accident or incident:

Activity Location: \*Any Location Type

Activity Type: Lifting, crane, rigging, deck operations

Description: During heavy seas, a 13`5/8" riser joint (8100 kg) broke free from its sea fastenings impacting on cargo in the close vicinity. Subsequent vessel movement initiated further cargo dislodgement resulting in damage to Well Engineering equipment stowed in the centre of the after deck. The equipment was subsequently transferred to a fixed installation using lifting equipment that was damaged during the previous cargo dislodgement.

Specific Equipment:

*No details available.*

Lessons Learnt:

1. A working knowledge of the appropriate UKOOA Guidelines is required by personnel who carry out cargo loading and stowage operations and by those responsible/accountable for the implementation and management of this process.
2. Pre-load out meetings are essential to allow safe loading and subsequent securing of equipment. An off loading strategy must be considered during the pre-load out meeting.

3. Steel sections on Anchor Handler (when used for cargo runs) after decks should be accompanied with ropes to aid friction.
4. Equipment and the accompanying lifting assemblies must be double checked for damage if cargo became loose during any voyage cycle.
5. Lifting equipment must not be used if damaged in any way.
6. Should any equipment or lifting assemblies be landed on an installation which is damaged, lifting operations must be suspended immediately and discussion opened between the installation/vessel to mitigate any further damaged lifting assemblies being off loaded to the installation.

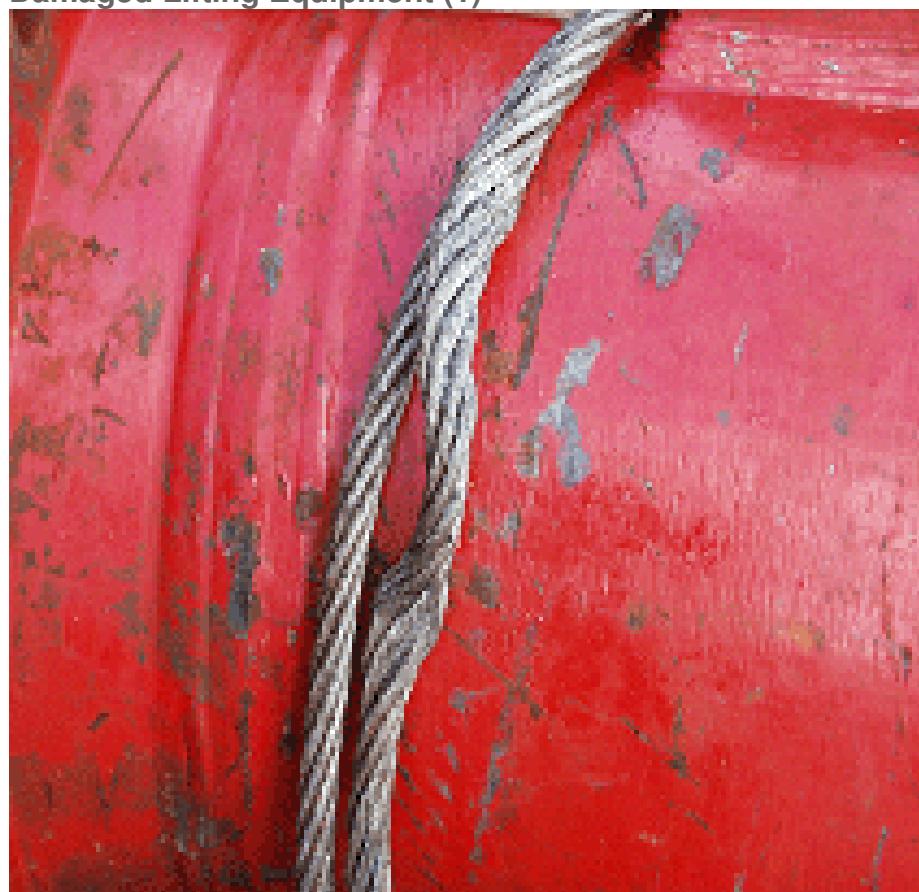
Task Description: *No details available.*

Recommendations:

1. Pre-load out checklist completion to a **degree of quality** incorporated in marine base procedures.
2. Implementation of a safety brief for spot hire vessel crew at marine bases prior to loading/voyage.  
Completion of a safety de-brief on return. This being documented and built into marine base procedures.
3. Completion of UKOOA Safe Packing and Handling of Cargo course by marine/installation personnel.
4. The setting up and completion of a similar course detailing the requirements laid out in UKOOA Safe Management and Operation of Offshore Support Vessels by marine/installation personnel.
5. Review of existing procedures to determine the visibility and compliance of the 85% deck rule (allows crew movement between cargo) and the necessity for ropes on steel deck sections.

Contact Details: **Steve Grant HS&E Team – 01224 818995**

**Damaged Lifting Equipment (1)**



**Damaged Lifting Equipment (2)**



## 186: Catalytic Gas Input Modules (GIMs)

Summary: Following the accidental release of hydrocarbon gas on an offshore installation the gas detection system recorded the gas concentration as it increased until the Gas Input Module (GIM) cards went into an over-range fault condition.

Incident consequences (potential or actual): *No details available.*

Cause of accident or incident: *No details available.*

Activity Location: Fixed Installation

Activity Type: \*Any Activity Type

Description: Following the accidental release of hydrocarbon gas on an offshore installation the gas detection system recorded the gas concentration as it increased until the Gas Input Module (GIM) cards went into an over-range fault condition resulting in no gas concentration readings from the detection system. However, the control logic signals (e.g. for shutdowns, etc) had been initiated and were latched in position, thus maintaining any shutdown actions.

The operators reset the SFD2002 GIM cards while the gas heads were still subject to high concentrations of hydrocarbon gas. The consequence of resetting the cards was that, after the warm up period, the card went straight into over-range fault without first indicating low-level gas (LLG) or high-level gas (HLG). Therefore because the control logic signals were not re-initiated the F&G system was put into the non-alarmed state allowing the process to be restarted, once the wellhead and riser valves had been manually reset, even though there were still high

levels of gas present.

Specific Equipment: *No details available.*

Lessons Learnt:

1. In the event of the gas detection system recording an over range fault the GIM cards should only be reset once field conditions have been resolved.
2. Operating personnel should be fully aware of the operating characteristics of the F&G system, its limitations and the technical aspects of the sensing devices and be aware of the manufacturers operating instructions.

Task Description: *No details available.*

Recommendations: All offshore installations to review the F&G systems to confirm that all personnel involved in operation of the system are familiar with the operating characteristics of their systems in the event of over-range fault.

Contact Details: *No details available.*

## 187: BASEEFA Certified Safety Torch

Summary: Whilst carrying out scheduled checks it was noticed that one of the SA812 safety torches manufactured by SA Equipment Ltd was damaged.

Incident consequences (potential or actual): *No details available.*

Cause of accident or incident: *No details available.*

Activity Location: \*Any Location Type

Activity Type: \*Any Activity Type

Description: Whilst carrying out scheduled checks it was noticed that one of the SA812 safety torches manufactured by SA Equipment Ltd was damaged. A small crack was visible where the spring clip on the reverse of the torch is riveted to the plastic body. The crack went clean through to the inside of the torch, thus invalidating the Ex certification. After further checking, it was found that a number of these torches had the same problem and were therefore unfit for further use in operational areas.

Specific Equipment: *No details available.*

Lessons Learnt: Despite being new in appearance and showing no other visible signs of damage (i.e. as if they had been dropped), these torches could be potentially hazardous. All torches should be inspected and particular attention paid to where the spring clip is attached to the body of the torch.

The manufacturers have so far been unable to identify precisely why this cracking should have occurred, however, the defect may be age related as the torches which were returned for inspection ranged from five to

twelve years old.

Task Description: *No details available.*

Recommendations:

1. All torches to be thoroughly inspected prior to use.
2. Any torches which are in day-to-day operational use and show signs of cracks in the area of the spring clip should be withdrawn. Any torches in grab bags which show similar signs of cracking can be left in place for the time being as they represent an extremely low risk. However, these torches should also be replaced as soon as practicable.
3. Torches which do not display signs of cracks remain fit for operational use.
4. Although SA812 torches may continue to be purchased if desired, alternative torches are currently being identified which are suitable for use in operational areas. This information will be passed to all locations as soon as possible.

## Crack in Safety Torch



## 188: Valve Flush/Greasing/Sealant Injection Hazards

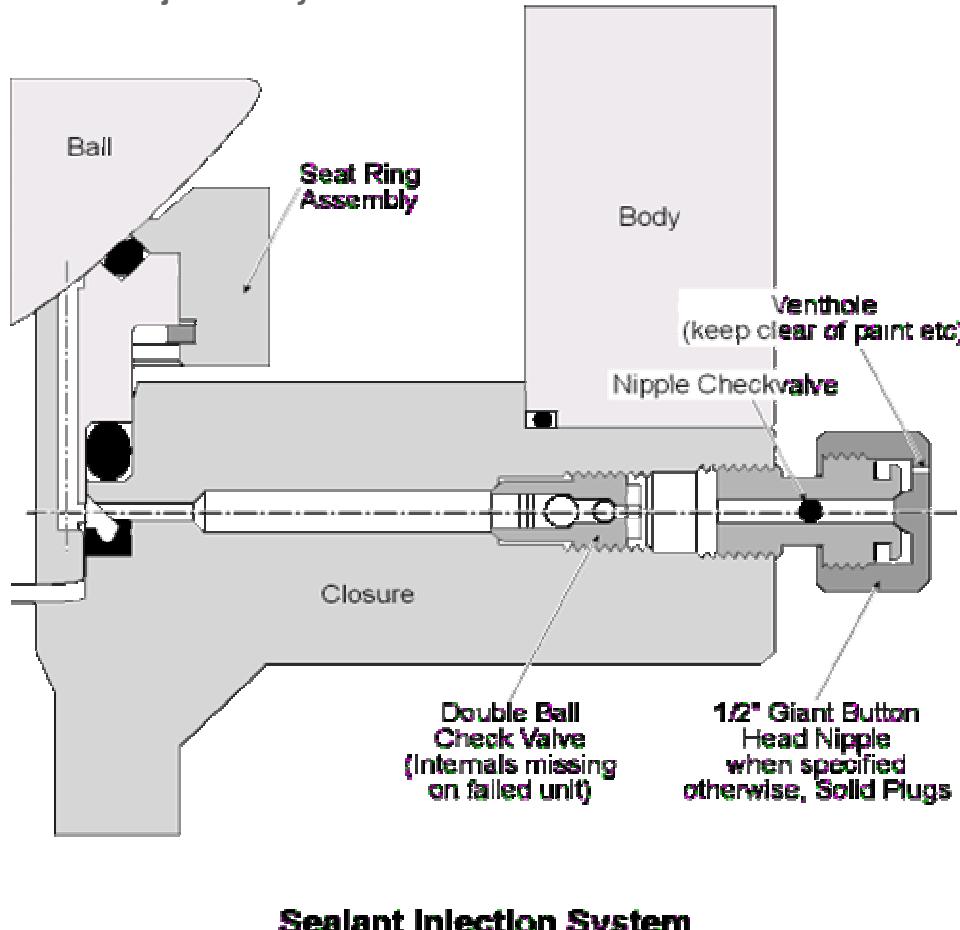
Summary:	Sealant was being injected into a depressurised 30" sphere launcher inboard valve by a competent technician when one of the four injector nipples was found to be blocked.
Incident consequences (potential or actual):	<i>No details available.</i>
Cause of accident or incident:	<i>No details available.</i>
Activity Location:	*Any Location Type
Activity Type:	*Any Activity Type
Description:	Sealant was being injected into a depressurised 30" sphere launcher inboard valve by a competent technician when one of the four injector nipples was found to be blocked. The nipple was removed along with the separate internal check valve and on closer inspection the internal spring and ball of the check valve were found to be missing. It was not evident when the failure of the check valve had occurred but it was suspected it was as a result of over-pressuring during previous injection activities. The consequence was that the remaining check valve in the nipple was the only barrier between the body cavity and atmosphere. Failure of the nipple to reseat correctly would have resulted in a hydrocarbon release when the line was re-pressurised.
Specific Equipment:	<i>No details available.</i>
Lessons Learnt:	The injection of grease etc. into injector nipples should only be undertaken by competent persons.
Task Description:	<i>No details available.</i>

Recommendations: Ensure that personnel involved in the injection of valve flushing, lubricant and sealant products are trained and competent in the process i.e.

1. trained to inject without over pressuring the injection facility
2. aware of possible failure modes and associated risks

Contact Details: *No details available*

### Sealant Injection System



## 189: Loss of Containment from Temporary Flowline (Chiksan) during Bullheading Operations

Summary: At start of bullheading operations using chiksan pipework a gas release occurred from a coupling seal.

Incident consequences (potential or actual): *No details available.*

Cause of accident or incident: *No details available.*

Activity Location: Any Location Type

Activity Type: Drilling, workover

Description: At start of bullheading operations using chiksan pipework a gas release occurred from a coupling seal. The wells were closed in and depressurised by the area technician who was on site. Only one gas head gave a low level indication and there was no change of platform status. Escalation of the incident was prevented by the immediate actions taken by the area technician.

Specific Equipment: *No details available.*

Lessons Learnt: The failed seal underwent visual and chemical examination. Although no chemical attack was evident, the visual examination concluded that: The seal had been incorrectly moulded with blisters and a joint line visible in the surface; The part had fractured at a weak position in the moulding where two flow fronts had not bonded during the moulding process; and Excess flash had been trimmed from the part indicating that the part had been compression moulded from a tool which was not closing correctly. All the above indicate that due care has not been taken in producing the part and that there is also a problem with the manufacturers quality control

procedures. Manufacturers quality control procedures are being tightened to capture defective seals.

Task Description: *No details available.*

Recommendations: Prior to installation, a visual check of the chiksan seal for surface indications of defects should be carried out.

Typical defects include blisters, joint lines and flow front lines in the surface. Gas may be a contributory factor in seal failure, therefore in bullheading operations where flowing gas may be present, alternatives to temporary chiksan flowlines should be considered.

Contact Details: Incident alert taken from old website. Contact details not provided!







## 190: Quality / Integrity of Scaffolding equipment

Summary: Scaffolding component(transom) snapped on dismantle

Incident consequences  
(potential or  
actual):

Cause of accident or incident:

Activity Location: Fixed Installation

Activity Type: Maintenance

Description: When dismantling a system scaffold tower on an offshore installation, the scaffold team identified an intermediate transom, that was supporting the working platform had snapped

Specific Equipment:

Lessons Learnt: 1) The supporting transom did not fall to the deck below as it was wire lashed to the scaffold boards 2) The transom appeared to have been cut, part way through, by mechanical means at some time in the past 3) The weight & bounce on the working platform, contributed to the transom snapping

Task Description: *No details available.*

Recommendations: 1) Pre-work safety briefings should highlight & reinforce equipment safety inspections 2) When removing and returning scaffolding materials from their storage areas, a visual inspection for obvious damage should always be carried out. 3) Any damaged scaffolding component should be placed in a clearly identifiable quarantine area to prevent further use. 4) UNDER NO CIRCUMSTANCES should damaged equipment be returned to the scaffold

storage areas.

Contact Details: Steve Black - HSEQ Advisor (01224) - 246399

## 191: Safe Transportation of Sheetmetal Equipment

Summary: In recent weeks, there has been several occasions where sheet-metal equipment has been transported from site in an unsafe condition, increasing the risks to personnel who have to unload the equipment. This issue has occurred previously and the following information is being re-issued as a reminder as to the safest method of transportation.

Incident consequences (potential or actual): *No details available.*

Cause of accident or incident: *No details available.*

Activity Location: Fixed Installation

Activity Type: Maintenance

Description: During transportation of a top heavy 'metal folding' machine from a container to a work site on an offshore installation, a member of the work party received an injury when the machine became unstable and a part of the machine moved, trapping his hand. Although the injury was not serious, it had the potential for an amputation. An almost identical accident occurred 4 years ago and on that occasion a person's thumb was amputated.

Specific Equipment: *No details available.*

Lessons Learnt: *No details available.*

Task Description: *No details available.*

Recommendations: PUWER ASSESSMENTS Identify & Eliminate, where practicable, all hazards associated with the transportation and handling of heavy equipment Remove and / or secure moving parts Attach suitable warning labels, e.g.

**TOP HEAVY, CHECK FOR MOVING PARTS** Attach manufacturers instructions, if appropriate These requirement apply to and from and across installations  
**RISK ASSESSMENT** Conduct a Task based risk assessment prior to moving large / heavy objects. Consider the route & availability of suitable mechanical handling equipment Only adopt manual handling practices if absolutely necessary.

Contact Details: Steve Black - HSEQ Advisor (01224) - 246399

## 192: Transportation of Dangerous Goods

Summary:	In recent weeks several offshore locations have returned hazardous chemicals in a condition which does not comply with the International Marine Dangerous Goods (IMDG) regulations, or, the UKOOA Guidelines for the Safe Packing & Handling of Cargo to & from offshore locations.
Incident consequences (potential or actual):	<i>No details available.</i>
Cause of accident or incident:	<i>No details available.</i>
Activity Location:	Fixed Installation
Activity Type:	Maintenance
Description:	In recent weeks several offshore locations have returned hazardous chemicals in a condition which does not comply with the International Marine Dangerous Goods (IMDG) regulations, or, the UKOOA Guidelines for the Safe Packing & Handling of Cargo to & from offshore locations.
Specific Equipment:	<i>No details available.</i>
Lessons Learnt:	On investigation the following areas of non-conformance have been identified: - Improper shoring & securing Improper labelling of containers Un-declared hazardous goods
Task Description:	<i>No details available.</i>
Recommendations:	.1) Containers should be labelled in accordance with the IMDG regulations 2) Shoring & securing of materials should be conducted in line with UKOOA guidance 3) Checks should be made to ensure that the contents of the

container are accurately reflected on the Dangerous Goods Declaration form. 4) Accurate information should be forwarded to the individual who completes the Dangerous Goods Declaration by way of a safety data sheet & quantity of hazardous chemicals

Contact Details: Steve Black - HSEQ Advisor (01224) - 246399

## 193: Eye Safety / Accident Reporting

Summary:	When sweeping up after painting operations, a gust of wind blew up some debris and a small particle entered the operative's eye.
Incident consequences (potential or actual):	<i>No details available.</i>
Cause of accident or incident:	<i>No details available.</i>
Activity Location:	Fixed Installation
Activity Type:	Maintenance
Description:	When sweeping up after painting operations, a gust of wind blew up some debris and a small particle entered the operative's eye. The operative believed that he had cleared the foreign body himself by rubbing his eye. However, the following morning when the operative awoke he felt some irritation so decided to visit the medic. On visiting the medic, it became apparent that the foreign body was still in the eye and had to be removed with the use of a needle
Specific Equipment:	<i>No details available.</i>
Lessons Learnt:	1) The operative was wearing his safety glasses when the debris became lodged in the eye. 2) The operative did not report to the medic immediately after the incident 3) The action of rubbing the eye caused the incident to become worse and involve subsequent medical assistance / treatment.
Task Description:	<i>No details available.</i>
Recommendations:	1) All accidents should be immediately reported to the medic and your supervisor, no matter how trivial they may

seem. 2) Never persevere with any injury, seek medical attention immediately, before it becomes more serious 3) Protect your eyes..... You only have one pair for life!! REMEMBER..... REPORT ALL INJURIES TO THE MEDIC AS SOON AS POSSIBLE

Contact Details: Steve Black - HSEQ Advisor (01224) - 246399

## 194: Backloading of Incorrect Materials

Summary:	In a recent incident on an offshore platform, whilst carrying out vessel operations during the nightshift, the wrong container, was mistakenly backloaded to the vessel.
Incident consequences (potential or actual):	<i>No details available.</i>
Cause of accident or incident:	<i>No details available.</i>
Activity Location:	Fixed Installation
Activity Type:	Maintenance
Description:	In a recent incident on an offshore platform, whilst carrying out vessel operations during the nightshift, the wrong container, was mistakenly backloaded to the vessel. The contents of the container should not have been shipped and subsequently the Dangerous goods documentation was incorrect. This fact was only established once the material had reached the beach
Specific Equipment:	<i>No details available.</i>
Lessons Learnt:	1) The Deck Foreman failed to verify the container contents with the backload / manifest listing. 2) The backload list was left within the workshop as it was raining, meaning that a verification check could not be conducted. 3) The Dangerous Goods documentation was incorrect due to the wrong materials being shipped
Task Description:	<i>No details available.</i>
Recommendations:	1) Backload listings should always be used to verify material shipment is in accordance with the instructions from the Platform Materials Controller (PMC) 2) PMC

should be part of deck crew toolbox talk prior to work commencement, to ensure everyone is clear on the backloading requirements 3) A suitable hand-over should be in place for the communication of instructions when vessel operations take place during the night

Contact Details: Steve Black - HSEQ Advisor (01224) - 246399

## 195: Gas Release

Summary:	A gas compressor was being re-started after corrective maintenance. The train was slowly being pressurised when the outside operator noted an audible leak around the recycle pipeline on the scrubber skid.
Incident consequences (potential or actual):	<i>No details available.</i>
Cause of accident or incident:	<i>No details available.</i>
Activity Location:	Floating production/storage unit
Activity Type:	Production operations
Description:	A gas compressor was being re-started after corrective maintenance. The train was slowly being pressurised when the outside operator noted an audible leak around the recycle pipeline on the scrubber skid. The scrubber skid is open to atmosphere and had been offline allowing the heat exchangers and pipework to cool down to ambient from normal operating temperatures. The pipework had been de-pressurised while maintenance activities were ongoing. It is suspected that thermal expansion and contraction had loosened bolts on one of the flanges resulting in the release.
Specific Equipment:	<i>No details available.</i>
Lessons Learnt:	The platform already does planned maintenance routines to check the integrity of small bore pipework and flanges. However, these checks would not necessarily have highlighted a problem caused by thermal changes.
Task Description:	<i>No details available.</i>

Recommendations: A new maintenance routine has been created to check  
the torque settings of small bore flange bolts on  
compressors after significant maintenance work.

Contact Details: *No details available.*

## 196: Personal Safety Awareness

Summary: Near misses with potential for serious injuries

Incident consequences  
(potential or  
actual):

Cause of accident or incident:

Activity Location: Fixed Installation

Activity Type: Maintenance

Description: In recent weeks, there have been two serious near misses that under slightly different circumstances had the potential to cause serious injuries. From the investigations, the root causes of the incidents were very similar & alarmingly related to a failure to adhere to basic Health & Safety practices.

Specific Equipment:

Lessons Learnt: Operations being conducted without toolbox talks being held. Generic risk assessments being utilised for complex jobs, which do not reflect all the hazards. Non compliance with permit conditions Poor communication of responsibilities within work party Poor handover between work parties, particularly between shifts (i.e. nights & days). Personnel failing to recognise a change in the workscope and their duty to STOP THE JOB AT ANYTIME

Task Description: *No details available.*

Recommendations: Toolbox talks should be held prior to each task commencing or when there is a change to the workscope and / or personnel involved When using generic risk assessments it is important to verify that the hazards

present are reflected in the assessment, if not another risk assessment is required. Permits should be discussed at toolbox talks prior to work commencing When handing over between shifts, any changes in the job (e.g additional hazards) should be highlighted. Everyone has the empowerment to STOP THE JOB AT ANYTIME

Contact Details: Steve Black - HSEQ Advisor (01224) - 246399

## 197: Magnetic Rota-Broach Drill

Summary:	Whilst using a Magnetic Rota-Broach drill on support steelwork, the drill bit picked up some swarf; the operator subsequently stopped the drill.
Incident consequences (potential or actual):	<i>No details available.</i>
Cause of accident or incident:	<i>No details available.</i>
Activity Location:	*Any Location Type
Activity Type:	Maintenance
Description:	Whilst using a Magnetic Rota-Broach drill on support steelwork, the drill bit picked up some swarf; the operator subsequently stopped the drill. The drill was released from its working position to clear the swarf. After removal of swarf, the operator commenced setting up the drill, which thereafter lost its magnetic hold and slipped from position.
Specific Equipment:	<i>No details available.</i>
Lessons Learnt:	<ul style="list-style-type: none"><li>‣ Magnetic Rota-Broach drills must only be used in conjunction with an appropriate securing lanyard/strap/chain to prevent the drill falling should the magnetic attachment fail.</li><li>‣ Personnel must ensure that they are familiar with the safe operation of all tools prior to use; a condition of the Provision and Use of Work Equipment Regulations 1998 (PUWER).</li><li>‣ The use of power tools and their operation must be covered during pre-task risk assessment.</li></ul>
Task Description:	<i>No details available.</i>

- Recommendations:
- Personnel involved in using the Rota-Broach drill should be competent in the use of power tools and should have read the manufacturers instructions prior to using the drill.
  - A suitable method of preventing the drill from falling should be provided in the event that the magnetic attachment fails e.g. securing lanyard/strap/chain or an alternative engineered solution.

A Magnetic Rota-Broach Drill in use without a securing lanyard



A Magnetic Rota-Broach Drill in use with a securing lanyard



## 198: Needle Gun Incident

Summary: In a recent incident a VIBRO-LO 200 Needle Gun, the type with the Cap Head Screw on the Front Tube, came apart.

Incident consequences  
(potential or  
actual):

Cause of accident or incident:

Activity Location: Onshore terminal

Activity Type: Maintenance

Description: In a recent incident a VIBRO-LO 200 Needle Gun, the type with the Cap Head Screw on the Front Tube, came apart. In the process the inner piston was projected out and caught a near by colleague on the chin. Although the investigation and report is still being finalised it is evident that there are a number of actions we can take to prevent a potential reoccurrence.

Specific Equipment:

Lessons Learnt: Check all power tools prior to and at regular intervals during use

Task Description: *No details available.*

Recommendations: These actions are recommended for all types of Pneumatic hand tools.

1. Ensure the tool has clear identification.
2. Ensure the tool has a current in date Inspection/test certificate.
3. Ensure you have received information/instruction and training on the tool.
4. Ensure you are aware of the Manufacturers recommendations for use.
5. Ensure you are aware of the working Practices Do's and Don'ts.
6. Ensure you inspect the tool before

use. 7. Ensure you report inadequate or contaminated air supply.

Contact Details: None available

## 199: Feedback on Torch Incident

Summary: This input is to cover some feedback from a previously entered Alert

Incident consequences (potential or actual): *No details available.*

Cause of accident or incident: *No details available.*

Activity Location: Fixed Installation

Activity Type: \*Any Activity Type

Description: After receiving the safety alert on the torches, a Conoco platform checked the torches the fire team had which are of the same type. They found that 9 out of the 11 had small cracks in them.

Specific Equipment: *No details available.*

Lessons Learnt: This showed the value of these alerts, so please check the ones you have.

Task Description: *No details available.*

Recommendations: The platform is now sourcing an alternative torch to go with the BA sets.

Contact Details: Vicki.riach@conoco.com

## 200: Valve Stem Blow Out

Summary: Gland Packing Assembly came loose causign valve stem to blow out under pressure

Incident consequences  
(potential or actual):

Cause of accident or incident:

Activity Location: Floating production/storage unit

Activity Type: \*Any Activity Type

Description: Hydraulic Power Unit system isolation valve gland packing assembly came loose, causing valve stem to blow out under pressure of 208 barg. This valve is housed in the HPU control package cabinet. No damage was observed inside the cabinet and approx. 5 litres of hydraulic fluid which was lost from the system was contained in the cabinet.

Specific Equipment:

Lessons Learnt: HPU package checked for damage, none found. The damaged valve was replaced with new and the system was then serviced tested for leaks and for the verification of operating pressure.

Task Description: *No details available.*

Recommendations: Investigation ongoing.

Contact Details: *No details available.*

## 201: Valve Stem Blow Out

Summary: Gland Packing Assembly came loose causign valve stem to blow out under pressure

Incident consequences  
(potential or actual):

Cause of accident or incident:

Activity Location: Floating production/storage unit

Activity Type: \*Any Activity Type

Description: Hydraulic Power Unit system isolation valve gland packing assembly came loose, causing valve stem to blow out under pressure of 208 barg. This valve is housed in the HPU control package cabinet. No damage was observed inside the cabinet and approx. 5 litres of hydraulic fluid which was lost from the system was contained in the cabinet.

Specific Equipment:

Lessons Learnt: HPU package checked for damage, none found. The damaged valve was replaced with new and the system was then serviced tested for leaks and for the verification of operating pressure.

Task Description: *No details available.*

Recommendations: Investigation ongoing.

Contact Details: vicki.riach@conoco.com

## 202: Overheating 4 Gang Socket Extension

Summary: Overheating Socket on extension lead

Incident consequences  
(potential or  
actual):

Cause of accident *No details available.*  
or incident:

Activity Location: Floating production/storage unit

Activity Type: Any Activity Type

Description: 4 Gang surge protected socket extention overheated  
causing smoking. Not due to load.

Specific Equipment:

Lessons Learnt: Equipment disconnected and socket extension removed  
for examination by REP. All other cabins checked. No  
further faulty unit found.

Task Description: *No details available.*

Recommendations: Ensure that PUWER requirements are met at all times  
and that regular checks of all portable electrical  
equipment is carried out and documented. Remove faulty  
items immediately.

Contact Details: vicki.riach@conoco.com

## 203: FRC Transfer Incident

Summary: Two crew members fell into sea while transferring

Incident consequences  
(potential or  
actual):

Cause of accident *No details available.*  
or incident:

Activity Location: Support vessel eg Supply, Standby

Activity Type: Sea transport

Description: While transferring a crew member from one boat to another by FRC the FRC made contact with a large tyre on the side of one of the boats resulting in a crew member falling into the sea. At this time another crew member was on pilot ladder boarding the boat. FRC went to recover first crew member and while doing so second crew member fell from the ladder. FRC recovered both men and took them back to the boat.

Specific Equipment: Fast Rescue Craft

Lessons Learnt: Investigation ongoing

Task Description: *No details available.*

Recommendations: Minimise vessel transfers at sea.

Contact Details: vicki.riach@conoco.com

## 204: Safety Circular

Summary: The importance of maintaining records for demonstrating due diligence in Food Safety Management

Incident consequences (potential or actual): *No details available.*

Cause of accident or incident: *No details available.*

Activity Location: Any Location Type

Activity Type: Any Activity Type

Description: : Recently, there have been two incidents involving the integrity of our Food Safety Management System in the Offshore Division. The first case involved seven people presenting to the medic with vomiting and diarrhoea. The investigation started with the possibility that food prepared on the platform was the source of infection, although it was more likely to have been a viral outbreak. The Unit Manager liaised closely with the medic and was able to give him the previous four days menus. Food histories were then taken from the seven people to check for any common foods they had consumed. The Unit Manager was also able to provide a complete portfolio of evidence of due diligence, including hot and cold food temperature records, records of time and temperature for the cooling of hot food and complete training records of all food handling staff. The completeness and thoroughness of this evidence made it much easier to investigate the incident. The outbreak was proven to be viral. The second incident involved the alleged sighting of a rodent on an offshore platform. The Unit Manager liaised quickly with the client and a pest control contractor was mobilised to the platform. Traps were set at various places on the platform and regularly checked by the

medic and Unit Manager. There has been no sign of any rodent on the platform since. In addition to the above action, all proper records as described in the case above, were in place on this unit, thereby demonstrating a safe efficient service and due diligence. The HACCP on this unit was reviewed following the incident, adding improved controls for the storage of food.

Specific Equipment: Maintaining records

Lessons Learnt: These two incidents are a good example of why it is necessary to ensure the Food Safety Management System is adhered to and regularly reviewed. The importance of maintaining records is paramount in demonstrating due diligence and helps both ARAMARK and the client.

Task Description: *No details available.*

Recommendations: Ensure the Food Safety Management System is adhered to and regularly reviewed. The importance of maintaining records is paramount in avoiding illness and demonstrating due diligence.

Contact Details: Neill Murray,&

## 205: Knife Blades Snapping

Incident Date: *Date of incident not available.*

Summary: Three near misses with the blades of galley knives snapping

Incident consequences  
(potential or  
actual):

Cause of accident or incident:

Activity Location: Any Location Type

Activity Type: Catering / hotel services

Description: Over the past two months there have been three near misses related to knives. On each occasion the blade of the knife has snapped and come away from the handle. The knives were of the moulded plastic handled type and the blade came part way up the handle. The potential for a serious cut or for food being contaminated was high in these incidents. By reporting them as near misses action can be taken to help prevent injury.

Specific Equipment:

Lessons Learnt: *No details available.*

Task Description: *No details available.*

Recommendations: When purchasing new • Implement/maintain a knife inspection checklist • knives, ensure they are of the type with the rivets in the handle and the metal Consider • Replace any defective knives. • runs the length of the handle. replacing moulded plastic handled type as described above for the knives with riveted handles

(colour coded).

Contact Details: Neill Murray,&

## 206: Battery Burn to Hand

Incident Date:	<i>Date of incident not available.</i>
Summary:	Person assembling batteries burnt his right hand
Incident consequences (potential or actual):	<i>No details available.</i>
Cause of accident or incident:	<i>No details available.</i>
Activity Location:	Fixed Installation
Activity Type:	Maintenance
Description:	Person assembling a bank of batteries received a burn to his right hand, due to arcing whilst he was tightening the terminal.
Specific Equipment:	<i>No details available.</i>
Lessons Learnt:	Assembly of the battery layers connection individually rather than assemble three layers with poor access. An improved insulated tool for torquing and protective gloves. Site risk assessment and sustained focus for the duration of all activities.
Task Description:	<i>No details available.</i>
Recommendations:	Revise the battery enclosure assembly work plan to improve access when tightening the battery terminals and links. Inform vendor of inadequate standards of insulation on the torque wrench, with potential for other incidents to occur. Communicate the incident findings to the vendor highlighting the failings and standards required by Conoco UK Ltd. Contact PPE suppliers to investigate the market for the best glove type for use with dry cell

batteries.

Contact Details: [vicki.riach@conoco.com](mailto:vicki.riach@conoco.com)

## 207: Removal of Gratings

Summary:	The unauthorised removal of platform Kennedy gratings has occurred within recent weeks
Incident consequences (potential or actual):	<i>No details available.</i>
Cause of accident or incident:	<i>No details available.</i>
Activity Location:	Fixed Installation
Activity Type:	Modification of plant/structures
Description:	The unauthorised removal of platform Kennedy gratings has occurred within recent weeks, resulting in no injury or incident, however with the potential for more significant consequences. The following notes are presented as a reminder of the safe practices that should be adopted whilst removing gratings.
Specific Equipment:	<i>No details available.</i>
Lessons Learnt:	Conduct a specific risk assessment prior to commencing task, specifically considering: - Manual Handling / Mechanical lifting of gratings Fall protection (i.e. harness & inertia reel) Surrounding operations / third parties Barriers & signage Permit requirements Hold a toolbox talk with all the team members prior to lifting gratings to ensure that everyone is aware of any manual handling activities and / or fall protection devices required. Prior to removing gratings ensure that your permit to work allows the removal to take place and ensure that the platform control room is aware of the task. Ensure barriers (scaffold handrails & toe-boards) are erected around the area to be removed BEFORE the gratings are removed.

Task Description: *No details available.*

Recommendations: GRATINGS SHOULD NEVER BE REMOVED WITHOUT  
PLATFORM AUTHORISATION

Contact Details: *No details available.*

## 208: Surge tank overpressure incident

Summary: A surge tank in use as part of a well clean-up package became over pressured during an operation to bleed off nitrogen.

Incident consequences (potential or actual): *No details available.*

Cause of accident or incident: *No details available.*

Activity Location: \*Any Location Type

Activity Type: Well services / intervention

Description: A surge tank in use as part of a well clean-up package became over pressured during an operation to bleed off nitrogen from a dual bore intervention riser on a subsea water injection completion. This resulted in a pin-hole leak in a pressure gauge nozzle and subsequent seawater release. The operation required approximately 55 bbl seawater to be displaced from the well with nitrogen at up to 600 psi surface pressure, controlled by a choke valve. The P&ID specified a 100 bbl surge tank rated for 100 psi to measure the returns although in the event, a 50 bbl tank rated to 50 psi was supplied, requiring the surge tank to be drained via the overboard dump line part way through the job. After some 45 bbl seawater had flowed into the surge tank, nitrogen pumping was stopped, the inlet valve to the surge tank was closed and the transfer pump was lined up to take water from the well and the surge tank simultaneously. Both operators undertook this task and the choke was left unattended. One of the operators observed a sudden increase in pressure in the surge tank to 90 psi and heard the relief valve lift. At the same time, a sudden jet of water came from the pressure gauge nozzle on the side of the surge tank. The other

operator rapidly closed the choke and the pipe work was reconfigured to bleed off the remaining seawater and nitrogen overboard without going through the surge tank. Inspection offshore found the flame arrestor fitted to the surge tank was blocked and deformed by pressure and it was apparent that this damage had occurred some time before the equipment was mobilised. The surge tank was inspected onshore and this confirmed the tank body had minimal wastage but a localised corrosion pit had occurred in the gauge nozzle which resulted in the leak. The relief valve was tested and opened at 37 psi but did not re-seat properly. All certification was correct and up to date.

Specific Equipment:

*No details available.*

Lessons Learnt:

1. The process equipment design and operating procedure did not fully address the risks associated with flowing gas into a low pressure surge tank. There was no detailed procedure to drain the surge tank during the nitrogen displacement.
2. The change to the surge tank specification was not recorded and the impact on the operation was not managed correctly.
3. Inspection of the surge tank by BP's agent and the MODU certification authority prior to load out did not identify the change in specification.
4. Maintenance and inspection of the surge tank and flame arrestor was inadequate.
5. The pressure gauge nozzle on the surge tank formed a dead leg for liquids during transport and storage, leading to risk of localised corrosion.
6. There was nothing to limit flow into the surge tank or automatic trip of the ESD valve to protect the vessel in the event of a high pressure surge.

Task Description:

*No details available.*

Recommendations:

1. Displacement of non-hydrocarbon completion brines with inert compressible fluids ( N2, CO2 etc.) should only be conducted after a formal review of the detailed operations procedures. Risks associated with stored

energy and potential system over-pressure should be carefully addressed. 2. Deployment of alternative equipment to that originally specified and checked should only be authorised after review and relevant modifications to any procedures are signed off. 3. Review management of change procedures to ensure all relevant parties are notified of any changes to equipment or procedures. 4. All surge tanks used on BP operations should have separate vent and relief line outlets. Include inspection of flame arrestors in the maintenance and inspection programme. 5. Review maintenance and inspection of surge tanks in the light of the corrosion of the pressure gauge nozzle. 6. Consider installing fixed orifice and / or pressure pilot configured to trip ESD system in the event of high surge tank pressure.

Contact Details: Geoff Weighill, 01224 833516. Paul Cameron, 01224 833062

## 209: High Potential dropped load

Summary: This record has been removed as it was identified as a duplicate entry. The original record can be accessed by following this link to Record 220.

Incident consequences (potential or actual): *No details available.*

Cause of accident or incident: *No details available.*

Activity Location: Any Location Type

Activity Type: Any Activity Type

Description: *No details available.*

Specific Equipment: *No details available.*

Lessons Learnt: *No details available.*

Task Description: *No details available.*

Recommendations: See sadie alert 220

Contact Details: *No details available.*

## 210: Scaffolder fall from ladder

Summary: A scaffolder fell 2-3 metres from a Scaffold ladder. He fell from the ladder to the Deck.

Incident consequences  
(potential or  
actual):

Cause of accident or incident:

Activity Location: Any Location Type

Activity Type: Temporary access

Description: The injured party, a scaffolder fell 2-3 metres from a Scaffold ladder forming part of a Scaffold in the process area intermediate deck. He fell from the ladder to the Deck. The Scaffold was at the condensate metering skid and had been erected for the installation of North Everest Mid life compression. As a result of the fall the Injured party was medi rescued to Aberdeen Royal Infirmary. He was diagnosed as suffering from cruciate ligament damage and bruising. Xrays confirmed that he has no broken bones. He was discharged from hospital on the morning of the 5th of May and taken home in a taxi.

Specific Equipment:  
Equipment:

Lessons Learnt: The investigation has found the following critical factors 1. Less than adequate risk assessment for the use of ladders. The risk assessment in use is highly generic and has little reference to safe use of ladders; 2. Less than adequate formal training in ladder ascent and descent to ensure knowledge of the best practice to maintain 3-point contact; 3. Less than adequate grip between the ladders and boots; 4. Less than adequate safety standard regarding ladder use in the relevant standards for the

construction of scaffold, particularly in relation to risk management; 5. Less than adequate action plan arising from the fatality at Grangemouth in 2001 which resulted from a fall from a fixed ladder. The action plan does not extend to portable ladders; 6. Less than adequate definition of working at height. Custom and practice appears to be that ascending and descending a ladder does not constitute working at height;

Task Description: *No details available.*

Recommendations: Thorough and adequate risk assessment must take place and all mitigating factors be applied prior to commencing the task.

Contact Details: Jim Blacklaws 01224 832909

## 211: Dropped Object Colied Tubing Unit

Summary:	A near miss recently occurred when a "D" clip fell from the gooseneck on a Colied Tubing Assembly, whilst it was fully rigged up within a platform derrick, a distance of approximately 13 metres.
Incident consequences (potential or actual):	<i>No details available.</i>
Cause of accident or incident:	<i>No details available.</i>
Activity Location:	Fixed Installation
Activity Type:	Well services / intervention
Description:	The investigation was unable to ascertain the actual failing, but concluded there were three potential scenarios. The process of opening the goose neck top rollers to aid the stabbing of the coil created one of the following the situations. 1. The "D" clip was inadvertently left on top of the gooseneck after removing it to open the top roller. 2. The "D" clip was fully relocated, was struck, opened and pulled from the bracket. 3. The "D" clip had been relocated, but the "D" spring, part of the fitting had not been replaced onto the pin. The third scenario is considered to be the most likely.
Specific Equipment:	<i>No details available.</i>
Lessons Learnt:	The investigation did identify that the collet played an important part in maintaining the location of the spring. The collet once in position near the head of the pin should be crimped to prevent it sliding down the spring. Failure to carry this out allows the spring attachments to loosen through wear and tear, and on occasion allow the

spring to part from the head of the pin.

Task Description: *No details available.*

Recommendations: 1. Pre-mobilisation checklist to include checks on securing mechanisms and confirm they are in place and in good condition. This should include "D" pins, "R" clips, securing bolts (fitted with nyloc nuts) and other such securing devices. 2. Pre-RIH checklist to repeat checks to ensure no mobilisation damage has occurred. Carried out by competent personnel. 3. An awareness demonstration to be given to all personnel who are involved in the operation of this equipment. 4. Consider the removal of the top roller unit during operations where it cannot be closed.

Contact Details: Norman marwick HES HSE Department Tel 01224 728400

## 212: Loading of Lifeboats during Drills

Summary:	This notice sets out guidance for limitations on loading lifeboats with personnel and for the use of maintenance pennants during drills. Ref SADIE Alert 102.
Incident consequences (potential or actual):	<i>No details available.</i>
Cause of accident or incident:	<i>No details available.</i>
Activity Location:	*Any Location Type
Activity Type:	*Any Activity Type
Description:	Lifeboats have been involved in a number of serious/fatal incidents during maintenance operations and drills when the boat has inadvertently fallen into the sea (eg see SADIE Safety Alert 102). In recognition of this issue, Step Change has set up a Lifeboat Loading & Launching Work Group, one of the functions of which has been to investigate the different approaches used by industry on lifeboat drills, in relation to legislative requirements, manufacturers' recommendations and to make recommendations on best practice. Through an offshore survey the workgroup has recognised that fully loading lifeboats during drills exposes personnel to elevated risk. However, it is also vital to maintain confidence among installation crews in the use of emergency evacuation equipment. The following recommendations on the limitations on loading lifeboats with personnel and for the use of maintenance pennants during drills have been made for the continued practice of lifeboat drills among crews. The guidance is given on an interim basis until a risk assessment has been carried out by the workgroup.
Specific	<i>No details available.</i>

Equipment:

Lessons Learnt: *No details available.*

Task Description: *No details available.*

Recommendations: 1. Individuals should be offered the opportunity to become familiar with lifeboats during offshore induction and by means of regular drills, however:- 2. It is strongly recommended that the practice of fully loading lifeboats with personnel during drills or inductions be discontinued with immediate effect. 3. The maximum number of persons in a lifeboat at any given time be restricted to an absolute maximum of 5 (five) persons, on condition that this is within the Safe Working Load of the maintenance pennants for davit launched life-boats or maintenance ram for free-fall lifeboats, should this option be selected (see 4 below). > 4. For davit launched life-boats, maintenance pennants may be fitted at times when persons are in the lifeboat but this is at the discretion of the Company on whose Installation the lifeboat is located and it is dependent on the activity being undertaken. Note: for maintenance activity such as the testing of release gear the fitment of maintenance pennants would be mandatory.

Contact Details: Contact: Robert Hirst, Total Fina Elf Exploration UK plc, 01224 297891, E-mail: [robert.hirst@tfueuk.co.uk](mailto:robert.hirst@tfueuk.co.uk) Or Step Change in Safety: 01224 881272, e-mail: [info@stepchangeinsafety.net](mailto:info@stepchangeinsafety.net)

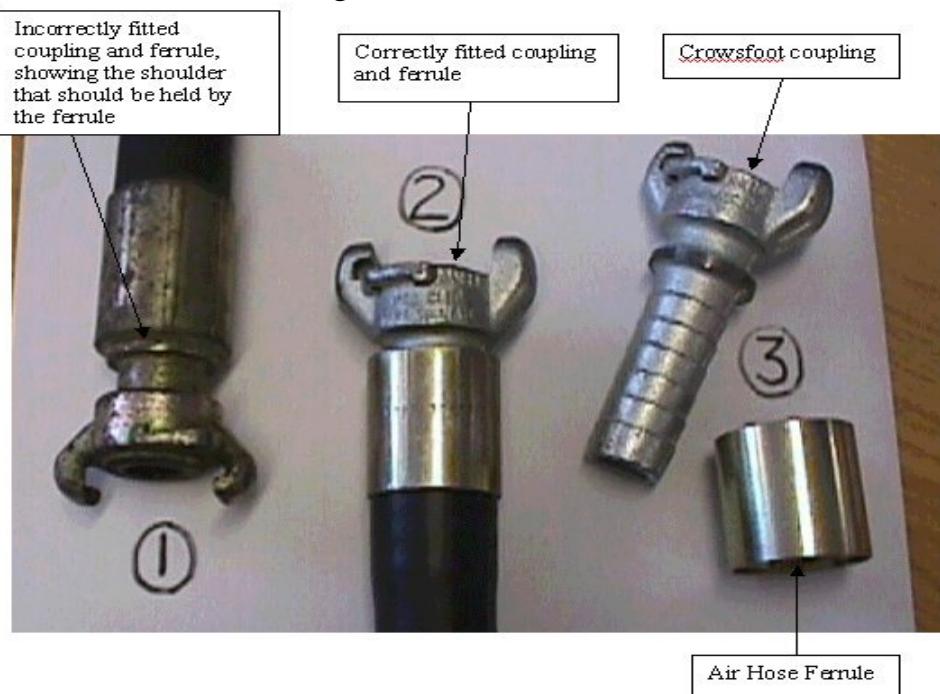
## 213: Faulty Air Hose Connections

Summary:	Fault identified on air hose connections during routine annual inspection.
Incident consequences (potential or actual):	<i>No details available.</i>
Cause of accident or incident:	<i>No details available.</i>
Activity Location:	Onshore office, support base, heliport
Activity Type:	Inspection/testing
Description:	<p>During a routine annual inspection a serious fault was identified on the connections of a set of air hoses. The air hoses terminated in a 'crowsfoot' coupling which was incorrectly restrained by a ferrule which did not restrain the collar of the 'crowsfoot' coupling. The 25mm air hose was relatively new and had distinct and clear markings indicating the pressure rating, standards of construction and use, that is, air. Upon investigation it was identified that the ferrule used was designed for hydraulic hose applications and not the air hose it had been crimped to. There are considerable differences in the ferrules that should be utilised. Failure of the connection could lead to serious consequences and further investigations are underway. The hose was marked with BS 5118/2 which has been withdrawn and replaced with BS ISO 2398(1995)</p>
Specific Equipment:	<i>No details available.</i>
Lessons Learnt:	Importance of an effective air hose identification and inspection program, backed up by pre-use inspection.
Task Description:	<i>No details available.</i>

Recommendations: 1. Check all in use and stored air hose to confirm correct securing of fittings. 2. Establish and maintain identification register with set testing performance standards. 3. Carry out visual inspections on all air hoses and record findings. 4. On completion of air hose rig up complete effect thorough examination in accordance with Pre-RIH and Operating Equipment Checklists

Contact Details: Norman Marwick HES HSE Department 01224 728400

### Incorrect Ferrule Fitting



## 214: Importance of Following Safe System of Work

Summary: Lost Time Injury following cut to finger. Not following safe system of work

Incident consequences (potential or actual): *No details available.*

Cause of accident or incident: *No details available.*

Activity Location: Any Location Type

Activity Type: Catering / hotel services

Description: IP suffered a serious cut to his finger resulting in a Lost Time Incident. The IP was cleaning food debris from a food processor with the blade still attached to the rotating disc. The machine was switched off at the time. His finger caught between the blade and the disc causing a serious cut to his finger. There was a safe system of work in place and the IP had been trained in the use of the equipment and realised that the blade should have been removed for cleaning.

Specific Equipment: Food processor

Lessons Learnt: Ensure all staff are • Established Safe Systems of Work MUST be followed. • If aware of their legal responsibility to adhere to safe working procedures staff are in doubt they must STOP the job and re-assess the task.

Task Description: *No details available.*

Recommendations: Established Safe Systems of Work MUST be followed.

Contact Details: Neill Murray,&

## **215: Be in control of your knife**

Summary: In a recent incident a chef was seriously injured cutting a block of cheese.

Incident consequences (potential or actual): *No details available.*

Cause of accident or incident: *No details available.*

Activity Location: \*Any Location Type

Activity Type: Catering / hotel services

Description: The chef was using two hands to force the knife through a 5kg block of cheese. He had placed a piece of galley cloth between the back of the blade and his left hand to reduce the pressure on his hand. As he applied pressure to force the knife through the cheese his left hand slipped off the back of the knife and swung up. He was still holding the knife by the handle with his right hand. With the pressure removed from the point of the knife, it swung upwards and pierced his left hand at the base of the thumb. The cut was sufficiently deep to sever a tendon.

Specific Equipment: *No details available.*

Lessons Learnt: Always be in control of your knife. Never use undue pressure on a knife.

Task Description: *No details available.*

Recommendations: Ensure knife handlers are fully trained in knife drill and competent. Consider

## 216: Forklift Mechanical Lifting Accident

Summary: Non Routine Forklift Operations

Incident consequences  
(potential or  
actual):

Cause of accident or incident:

Activity Location: Onshore office, support base, heliport

Activity Type: Lifting, crane, rigging, deck operations

Description: Operators were removing one of the forks from the FLT, during this operation while lowering the cradle the fork became stuck. The operator attempted to free the fork at which time the cradle fell due to the fact the hydraulics had been released. The IP had his thumb on top of the fork at the time resulting it becoming trapped.

Specific Equipment:

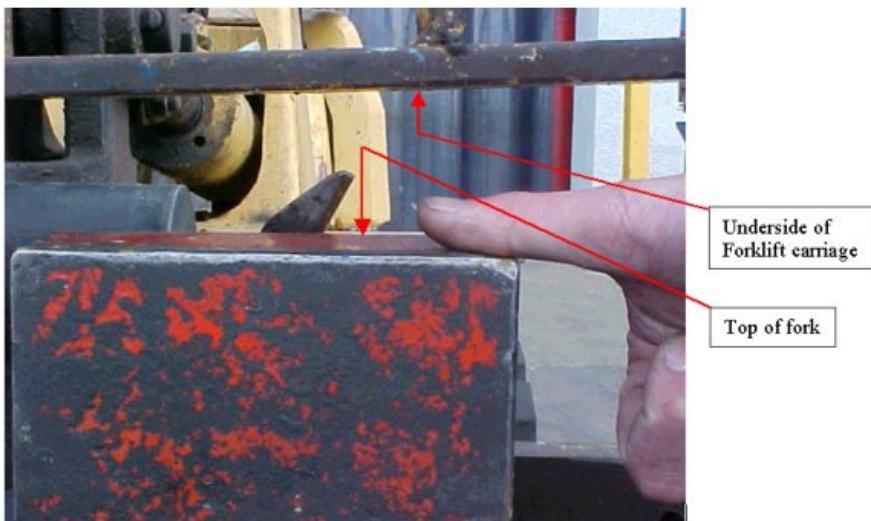
Lessons Learnt: Documented Procedures to be obtained from manufacturer for operation. Task to be performed by approved competent person.Risk Assessment to be documented and reviewed prior to operation.

Task Description: *No details available.*

Recommendations: Managers and Supervisors to ensure only competent persons perform task.

Contact Details: Richard Taylor QHSE Advisor Well Services ,IPM & BOXVIII

### Crushing Injury to Right Thumb



### Crushing Injury to Right Thumb



## 217: BOP/Casing Pressure Testing Operations

Summary: Potential Dangers from Pressure Testing Activities

Incident consequences  
(potential or  
actual):

Cause of accident or incident:

Activity Location: Drilling unit

Activity Type: Inspection/testing

Description: During pressure testing of the BOP, a failure occurred which led to the uncontrolled upward movement of the test assembly, top drive and travelling block. During the test there was pressure communication across the test plug (reason unknown), which resulted in an upward force on the test plug. It is estimated that the assembly moved upwards by approximately 10 to 20ft (with a force of approximately 550,000 lbs) This resulted in property damage, luckily nobody was injured.

Specific Equipment:

Lessons Learnt: Ensure the tool box talk is carried out. Good understanding of volumes required to reach pressure test. If in doubt shut down for safety.

Task Description: No details available.

Recommendations: 1)Perform a Task based risk assessment prior to carrying out the pressure test. 2)PTW to be signed by Rig Crew or Client Rep. (PTW may only be signed by SLB personnel for pressure testing operations within the pump room). 3)Be present at the rig crew BOP pressure testing toolbox meeting, (or arrange our own Toolbox meeting). For pressure testing operations know what pressures you will

be required to test to and consult with the client representative or tool pusher as to what volumes will be expected to pump up to pressure, (It should be understood that volume expected will vary greatly depending upon pressure testing fluid compressibility, casing depth and size, and required pressure. The following is given as a guide, and should be used unless deemed unsuitable by both the Schlumberger and Client/Rig Rep (see below): a)For surface lines and BOP tests, once the lines are full a negligible volume should be necessary to get to the required pressure. If it is found that more than 0.5 bbl is required to be pumped to reach the pressure, then the rig floor should be contacted, and the situation discussed, during a "Time out for Safety". b)For casing and downhole test. Once the lines and well are full, pump a maximum of three barrels (unless agreed otherwise with the client/drilling rep) to achieve the required pressure test. Should the required pressure not be achieved within this volume limit, the rig floor should be contacted, and the situation discussed, during a "Time out for Safety" IF IN DOUBT STOP THE JOB, AND HAVE A "TIME OUT FOR SAFETY" Permit to work only to be signed by cementer/ Opertor for pressure testing operations within the pump room

Contact Details: Henry Longden UKI Cementing Manager  
[hlongden@slb.com](mailto:hlongden@slb.com)

## 218: Security of Wireline Sheave Wheel Spoke Guard

Summary: To prevent dropped objects

Incident consequences  
(potential or  
actual):

Cause of accident *No details available.*  
or incident:

Activity Location: Drilling unit

Activity Type: \*Any Activity Type

Description: A spoke guarded sheave wheel was being used as an upper sheave in the derrick. Screws had worked loose on the wheel spoke cover, allowing the spacer to drop out of a gap between the plate and wheel onto the drill floor. Grampian Test has changed their procedure to apply Loctite to the screws during certification. As part of the Sheave Wheel pre-job FIT check - Check the spoke guard plate retaining screws for tightness. Secure with Loctite.

Specific Equipment:

Lessons Learnt: Loctite to be applied to screws during certification.

Task Description: *No details available.*

Recommendations: As part of the Sheave Wheel pre-job FIT check - Check the spoke guard plate retaining screws for tightness. Secure with Loctite.

Contact Details: Jack Willis Field Engineer  
[jwillis@aberdeen.oilfield.slb.com](mailto:jwillis@aberdeen.oilfield.slb.com)

## 219: Impact Wrench

Summary:	Incorrectly rated coupling utilized on impact wrench. Sudden disconnection caused hand injury.
Incident consequences (potential or actual):	<i>No details available.</i>
Cause of accident or incident:	<i>No details available.</i>
Activity Location:	Fixed Installation
Activity Type:	Maintenance
Description:	During the process of bolting together two sections of a lifting beam an impact wrench was required to drive a nut. User fitted universal coupling onto wrench which was not of the correct rating and in poor condition. During operation the coupling parted causing injury to operators hand. On investigation it was also identified that the impact wrench was set to "high" which contributed to the failure.
Specific Equipment:	<i>No details available.</i>
Lessons Learnt:	1) Tools were used incorrectly due to inexperience and lack of formal training. 2) No appropriate Risk Assessment was completed for the task.
Task Description:	<i>No details available.</i>
Recommendations:	1) Only competent and trained personnel should use impact wrenches and similar tools. 2) Upgrade Permit to Work audit structure to consider work group competence in relation to tools. 3) Disseminate event and issues at all Safety Briefs.

Contact Details: Donald Napier RMA Marathon Oil UK Limited Marathon  
House Anderson Drive Rubislaw Hill Aberdeen AB15 6FZ

## 220: Injury during personnel transfer using FROG system

Summary:	When retrieving FROG system from standby vessel unit slipped on deck and struck the ship's gunnels injuring legs of medic.
Incident consequences (potential or actual):	<i>No details available.</i>
Cause of accident or incident:	<i>No details available.</i>
Activity Location:	Fixed Installation
Activity Type:	Lifting, crane, rigging, deck operations
Description:	FROG was deployed to transfer an ill member of standby boat. When lifting FROG from vessel unit slipped on deck and struck ship's gunnels trapping medic's legs. Root cause of the event was related to inadequate Risk Assessment, poor communications and inadequate planning of the procedure. Weather conditions were not a factor in this event.
Specific Equipment:	<i>No details available.</i>
Lessons Learnt:	Communications, planning and effective risk assessment are all essential components in undertaking this form of infrequent and urgent activity.
Task Description:	<i>No details available.</i>
Recommendations:	1) Risk Assessment for this type of transfer must include crane driver, ship's captain and relevant deck personnel. 2) Marine operations procedures must supply useful guidance when carrying out this type of activity. 3) An effective line of communications must be in place for crane op., ship's captain, platform deck crew and standby vessel deck crew for this activity to be carried out safely.

- 4) Prior to undertaking this type of activity effective planning must be undertaken.

Contact Details: Donald Napier RMA Marathon Oil UK Limited Marathon House Anderson Drive Rubislaw Hill Aberdeen AB15 6FZ Tel: 012224 803802

## 221: Air compressor

Summary: Air Compressor filter incident

Incident consequences  
(potential or actual):

Cause of accident or incident:

Activity Location: \*Any Location Type

Activity Type: \*Any Activity Type

Description: The inlet air filter on a Third Party air compressor vibrated loose and dropped onto the exhaust manifold, causing it to melt and the paper element to smoulder

Specific Equipment:

Lessons Learnt: Some air compressors may have air filters which are susceptible to loosening by vibration and are easily damaged by hot surfaces.

Task Description: *No details available.*

Recommendations: Review air compressors being used offshore for security of the air filter. Check that the air filter cannot easily vibrate loose and that a secondary securing mechanism will prevent a loose filter from falling onto a hot surface. Suppliers of air compressors should review the design of the air filter to prevent this type of incident

Contact Details: B Campbell BJ Services

## 222: Swivel Near Miss on National OS215 Crane

Summary: The main hoist rope dead end swivel had partially unscrewed

Incident consequences  
(potential or actual):

Cause of accident or incident:

Activity Location: Fixed Installation

Activity Type: Lifting, crane, rigging, deck operations

Description: During routine preventive maintenance, the maintainer found that the Crosby 10Te swivel on the hoist rope dead end attached to the boom, had partially unscrewed. The grub screw designed to prevent this occurrence had come out. There were only 3 or 4 threads left before the swivel would have parted.

Specific Equipment:

Lessons Learnt: Preventive maintenance was successful. Swivels can come apart if not correctly secure

Task Description:

*No details available.*

Recommendations: Ensure swivels have the locking grub screw fully engaged and secured to prevent it coming loose.

Contact Details: Howard Dunn. Sparrows. 01224 704868

## 223: Potential Fires

Summary:	Near Miss Reports - all with potential to cause a fire - from ARAMARK sites this year, both UKCS and International.
Incident consequences (potential or actual):	<i>No details available.</i>
Cause of accident or incident:	<i>No details available.</i>
Activity Location:	Any Location Type
Activity Type:	Catering / hotel services
Description:	On two occasions, different units, deep fat fryers were turned on with no or little oil in them. Both caused a fire. Galley cloths were removed from a tumble dryer before the cooling cycle finished causing the cloths to combust. A fryer was left on after the shift finished. A microwave and salamander had electrical fault causing smoke. Tumble dryer elements were overheating and glowing red. A deep fat fryer tripped and was switched back on. After resetting it began to smoke. Cooking oil being stored over the cooking range fell and ignited. (on 2 occasions, different units) Tumble dryer was stopped and clothes removed before cooling cycle finished. (not by catering staff) Fuel cap was left off the fuel tank of a forklift truck. Oven cloth being stored above naked flame. Boot liners being stored over heater, covering the vents.
Specific Equipment:	Deep fat fryer, Tumble dryer
Lessons Learnt:	In addition to these there have been over 30 near misses involving items left in coverall pockets. Any damage to tumble dryers due to this could result in a fire. Please take note of these and ensure all staff are aware of the

potential of fire.

Task Description: *No details available.*

Recommendations: That all pockets be emptied by their owner prior to clothes being placed in laundry. That correct procedures be followed by all staff involved. That only catering staff should operate laundry equipment.

Contact Details: Neill Murray,&

## 224: Diving Near Miss

Summary: Safety Alert taken from Shell's database with regards to a diving helmet taking in water.

Incident consequences (potential or actual): *No details available.*

Cause of accident or incident: *No details available.*

Activity Location: Fixed Installation

Activity Type: Drilling, workover

Description: During a jacket inspection and cleaning job a contractor diver had to do an emergency ascent after his diving helmet started to take in water. It is likely that the diver's working ropes got partially entangled in the safety clip retaining the lower clamp assembly of the helmet. Fortunately the ascent was from shallow depth and the diver, after precautionary treatment in the compression chamber, suffered no injury or illness. The helmet was a KIRBY MORGAN 17 SUPERLITE. We understand that this type of helmet is widely used in the industry.

Specific Equipment: *No details available.*

Lessons Learnt: *No details available.*

Task Description: *No details available.*

Recommendations: The attached files show a proposed modification to the helmet to prevent recurrence of this incident.

Contact Details: The incident has been raised with DSI, the American manufacturer of the helmet.

Locking pin arrangement on the Kirby Morgan 17 prior to modification. An overall view of the Kirby Morgan 17 Superlite hat. The hat and neck dam are attached with the new locking mechanism in place.



Locking pin arrangement on the Kirby Morgan 17 after modification. The plunger and the latch catch body have been drilled out, both directly in line. The neck clamp assembly is fitted as previous, however, it is now locked in position with the secur



Locking pin arrangement on the Kirby Morgan 17 after modification. The neck clamp is locked in position by the latch catch assembly and a securing pin is inserted behind the plunger to avoid accidental pushing

and release of the neck clamp.



## 225: Possible Deterioration of Shackles Securing Liferafts in Stowage Position

Summary: Safety information issued from Viking with regard to the possible deterioration of shackles securing liferafts in the stowage position.

Incident consequences (potential or actual): *No details available.*

Cause of accident or incident: *No details available.*

Activity Location: \*Any Location Type

Activity Type: Sea transport

Description: Viking life-saving equipment a/s has recently become aware that some of the 8mm shackles, used for the securing (lashing) of VIKING liferafts on inclined ramps and vertical racks on ships, have shown signs of deterioration in the form of cracks in the material. Investigations have revealed that a smaller number of Vikings total supply of shackles for this purpose may be subject to deterioration and thereby to the development of possible critical cracks over time. The shackles in question, which do not meet the required specifications, were delivered by a company supplying shackles to different parts of the industry. For the sake of good order Viking shall inform you that the shackles used on your installation may not have been supplied by VIKING or a VIKING authorised servicing station, as the shackles in many cases are left on board when the liferafts are taken ashore for their annual service.

Specific Equipment: *No details available.*

Lessons Learnt: *No details available.*

Task Description: *No details available.*

Recommendations: As it is impossible to distinguish between conforming and non-conforming shackles VIKING have decided to recommend that all shackles be replaced as soon as possible. Vikings recommendation should result in harmonisation in this area where the refitting of the liferafts in most cases are out of the control of the servicing stations. Or, in other words the shackles will be subject to complete traceability and not least the conformity to required specifications will be identifiable to the ship's crew. Viking therefore strongly recommend you to take the following precautions and actions: If your ship is equipped with VIKING liferafts stowed on inclined ramps or in vertical racks you must contact one of the VIKING authorised services stations listed on the attached document. The servicing station will arrange for the forwarding of the necessary number of shackles. In the meantime VIKING strongly recommend you to take remedial precautions by carrying out securing of the shackle connections as shown on page 5&6 (attached)

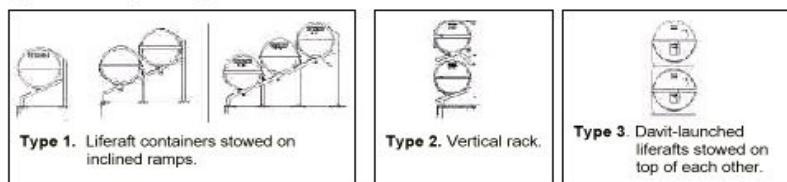
Contact Details: Please contact a listed servicing station close to your shipping route. Viking Head Office: Denmark, +4576118100, email: [viking@viking-life.com](mailto:viking@viking-life.com)

## Diagram of typical stowage arrangements - Page 2 of document



June 2002

### Typical stowage arrangements



When contacting the servicing station it would be of great help for a prompt attention to the matter if you have the following information available:

1. Type and capacity of your VIKING liferafts
2. Number of VIKING liferafts
3. Type of stowage arrangement (inclined ramp or vertical rack)
4. Port of delivery of replacement shackles
5. The ship's e-mail address for submission of instructions.

We are sorry for the inconvenience caused by the above. We trust, however, that you will join us in the effort to place safety as the highest priority.

Yours sincerely

VIKING LIFE-SAVING EQUIPMENT A/S

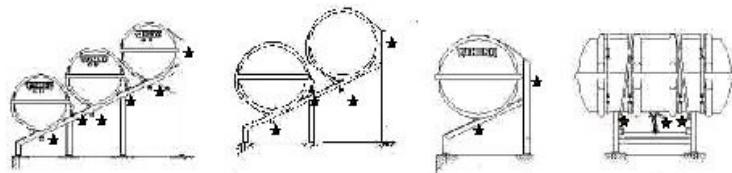
John Deleuran  
Service Manager

## Diagram of location of shackles on various types of inclined ramps and vertical racks - Page 3 of document



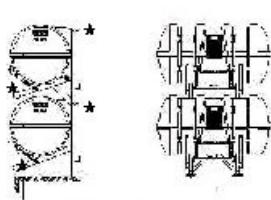
June 2002

### Location of shackles on various types of inclined ramps and vertical racks.

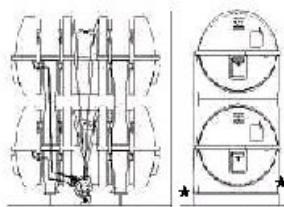


Various types of inclined container ramps.

★ = approximate shackle positions



Rack system



Two 25 pers. davit-launched liferafts placed on top of each other(rack)

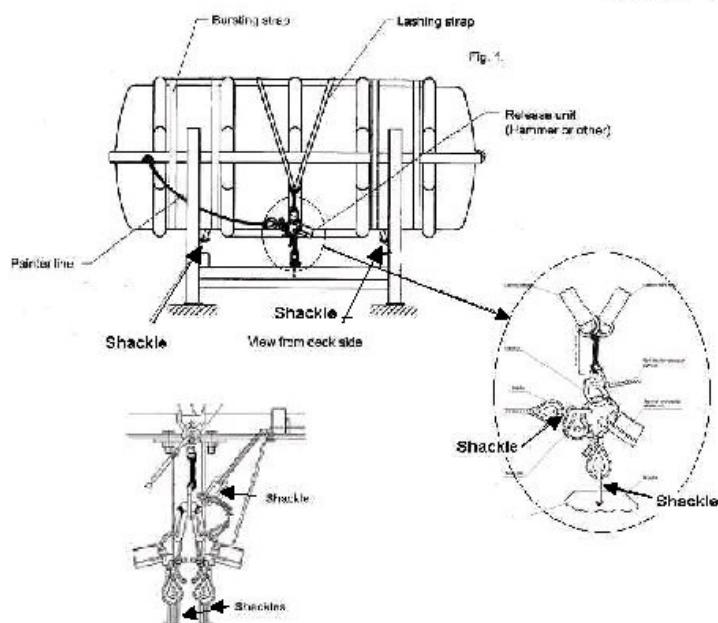
★ = approximate shackle positions

## Typical container installation - Page 4 of document



June 2002

### TYPICAL CONTAINER INSTALLATION



If your system is equipped with a remote container release system you will find an additional shackle in the Hydrostatic Release Unit area.

# Securing of shackles connections - Page 5 of document



June 2002

## Securing of shackle connections

In general: The securing of the shackle connection is done by means of a synthetic line with a diameter of at least 6 mm.

At the start of the lacing the line is tied with a bow knot and the lacing is made three- to four fold to ensure sufficient strength.

The lacing is finished off with a clove hitch and a securing knot.

PLEASE NOTE THAT SHACKLES HAVING A THICKNESS OF MATERIAL OF 10 MM CANNOT BE AFFECTED BY DETERIORATION FOR WHICH REASON SECURING OF THIS TYPE OF SHACKLE IS NOT NECESSARY.



1.1 In this situation the lacing is lead under a transverse bar of the ramp as there is no space to lead it through the shackle holes in the bar



1.4 and the lacing is finally secured with a knot



1.2 A three to four fold lacing is made



2.1 In this situation there is sufficient space to secure a shackle by making the lacing through the shackle connection points



1.3 Tied up with a clove hitch



2.2 Lacing procedure is carried out as in point 1.1 – 1.4

## Securing of shackles connections - Page 6 of document



June 2002

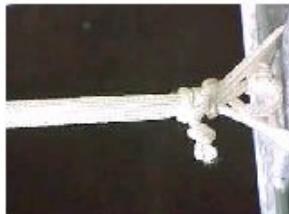
### Securing of shackle connections

**In general:** The securing of the shackle connection is done by means of a synthetic line with a diameter of at least 6 mm.  
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 The lacing is finished off with a clove hitch and a securing knot.

PLEASE NOTE THAT SHACKLES HAVING A THICKNESS OF MATERIAL OF 10 MM CANNOT BE AFFECTED BY DETERIORATION FOR WHICH REASON SECURING OF THIS TYPE OF SHACKLE IS NOT NECESSARY.



3.1 Here the lacing is lead under a transverse bar as in 1.1



4.2 The lacing is finished off with the normal clove hitch and securing knot



3.2 But otherwise carried out in accordance with the general instructions above



4.3 And the raft is secured on its ramp if the shackle should fail



4.1 At the back end of the lashing strap you may have to choose a transverse bar as the second lacing point

Head Office VIKING LIFE-SAVING EQUIPMENT A/S - Sædding Ringvej • P. O. Box 3000 • DK-8710 Esbjerg V • Denmark  
 Tel. +45 76 11 81 00 • Fax. +45 76 11 81 01 • Tlx. 54114 viking dk • www.viking-life.com • e-mail: [viking@viking-life.com](mailto:viking@viking-life.com)

6

## List of Viking Servicing Stations to be contacted - Page 7 of document



June 2002

### LIST OF VIKING SERVICING STATIONS TO BE CONTACTED

Country	Servicing station	Phone No.	Fax No.	E-mail address
AUSTRALIA	Viking (WA) Pty. Ltd 20 Mervin Road P.O.Box 408 6959 W.A. Burswood, WA	+61 (8) 93359155	+61 (8) 93357406	<a href="mailto:rody@vikingtrading.com.au">rody@vikingtrading.com.au</a>
CANADA	VIKING LIFE-SAVING EQUIPMENT CANADA LTD 3545 Philips Avenue (Vancouver) V5A 3K4 Burnaby, BC	+1 (604) 4211110	+1 (604) 4211945	<a href="mailto:viking-can@viking-life.com">viking-can@viking-life.com</a>
DENMARK	VIKING SERVICE Sædding Ringvej P.O.Box 3060 8710 Esbjerg V	+45 (76) 118100	+45 (76) 118107	<a href="mailto:viking@viking-life.dk">viking@viking-life.dk</a>
FINLAND	VIKING LIFE-SAVING EQUIPMENT OY Finland Pätkäkatu 13 FIN-21420 Lieksa	+358 (2) 489000	+358 (2) 4892011	<a href="mailto:viking-fin@viking-life.com">viking-fin@viking-life.com</a>
FRANCE	VIKING LIFE-SAVING EQUIPMENT FRANCE, S.r.l. (10 Ailes des Champs Elysées 91042 Évry Cedex)	+33 (0)1 80 87 09 00	+33 (0)1 80 87 09 01	<a href="mailto:viking-fr@viking-life.com">viking-fr@viking-life.com</a>
GERMANY	VIKING LIFE-SAVING EQUIPMENT (Deutschland) GmbH Ornweg 18 22865 Barmbek (Hamburg)	+49 (040) 67 01025	+49 (040) 67 01067	<a href="mailto:viking-de@viking-life.com">viking-de@viking-life.com</a>
GREAT BRITAIN	VIKING LIFE-SAVING EQUIPMENT Ltd Hamble Court Hamble Lane Hamble SO31 4QL Southampton, Hants	+44 (2380) 454184	+44 (2380) 454264	<a href="mailto:vikinggb@viking-life.com">vikinggb@viking-life.com</a>
GREECE	Technika S.A. 85, Menegou St 185 46 Piraeus	+30 10 4113916	+30 10 4122450	<a href="mailto:info@technika.gr">info@technika.gr</a>
HOLLAND	VIKING LIFE-SAVING EQUIPMENT B.V. Zuidwolkenweg 9 P.O.Box 1015 3330 CA Zwijndrecht	+31 (0)78 6102833	+31 (0)81 6103361	<a href="mailto:viking-nl@viking-life.com">viking-nl@viking-life.com</a>

7

## List of Viking Servicing Stations to be contacted - Page 8 of document



June 2002

LIST OF VIKING SERVICING STATIONS TO BE CONTACTED				
Country	Servicing station	Phone No.	Fax No.	E-mail adress
HONG KONG	VIKING LIFE-SAVING EQUIPMENT HONG KONG Ltd. Unit 1001, Chuan Kei Factory Building, 15-23 Kin Hong Street Kwai Chung, N.T. Hong Kong	+852 24259715 + 852 24202410	+852 24236231	viking-hk@viking-life.com
ITALY	Pedroca Cptd Andrea S.p.A. S.R.L. Via delle Palazzine 170 Loc. Saldone P.O.Box 67 19136 La Spezia	+39 (0187) 981322 +39 (0187) 981852	+39 (0187) 982499	pedroca@ctt.it
NORWAY	VIKING LIFE-SAVING EQUIPMENT NORGE AS Brotbekkvn. 101 P.O.Box 194 - Arendal N-3914 Osele	+47 (23) 704060	+47 (22) 545261	viking-n@viking-life.dk
SINGAPORE	VIKING LIFE-SAVING EQUIPMENT Pte. Ltd. 111 Duku Lane 10 Victory Building 02-00 539205 Singapore	+65 52825122 +65 52825495	+65 62622056	viking-sg@viking-life.com
SOUTH AFRICA	Life-saving Equipment & Servicing (Pty) Ltd. 30 Carlisle Street P.O.Box 1339 Pandora Island 8000 Cape Town	+27 (21) 5075879 +27 (21) 5075880 +27 (21) 5075777	+27 (21) 5075878	lens@pentaw.co.za
SPAIN	VIKING LIFE-SAVING EQUIPMENT (Iberica) S.A. C/General Prado, 112 Bis, Edif II 28006 Madrid	+34 (91) 5624833	+34 (91) 5613605	viking-e@viking-life.com
SWEDEN	VIKING LIFE-SAVING EQUIPMENT SWEDEN AB Sjöströmsvägen 63 S-135 49 Tyresö, Stockholm	+46 (0) 7700170	+46 (0) 7700183	viking-se@viking-life.com
THAILAND	Mermaid Maritime Ltd. Ladkrabang Industrial Estate 3921-3951 Tambon Toengkuakha, Amphur Sriracha, 20220 Chonburi	+66 (38) 491641 +66 (38) 491644	+66 (38) 491645	jorgen@mermaid-maritime.com

Head Office: VIKING LIFE-SAVING EQUIPMENT A/S • Smøring Ringvej • P. O. Box 3390 • DK-4710 Esbjerg V • Denmark

Tel: +45 76 11 81 88 • Fax: +45 79 11 81 01 • Tel: 54114 viking dk • www.viking-life.com • e-mail: [viking@viking-life.com](mailto:viking@viking-life.com)

8

## List of Viking Servicing Stations to be contacted - Page 9 of document



June 2002

LIST OF VIKING SERVICING STATIONS TO BE CONTACTED				
Country	Servicing station	Phone No.	Fax No.	E-mail adress
UNITED ARAB EMIRATES	VIKING LIFE-SAVING EQUIPMENT (ME) Al Jadaif Shipbreaking Yard P.O.Box 13448 Dubai	+971 (4) 3243550	+971 (4) 3243444	viking-uae@viking-life.com
USA	VIKING LIFE-SAVING EQUIPMENT (America), Inc. 625 North Miami Avenue 33195 Florida, Miami	+1 (305) 374-5115 +1 (305) 358-7446	+1 (305) 374-1535	us@viking-life.com

## 226: Temporary pressure spread checks

Summary:	An effective way of ensuring pressure system spread checks have been carried out, following a recent RIDDOR reportable incident.
Incident consequences (potential or actual):	<i>No details available.</i>
Cause of accident or incident:	<i>No details available.</i>
Activity Location:	*Any Location Type
Activity Type:	*Any Activity Type
Description:	A recent incident occurred when a hose that had been utilised as a part of a sub-contractor de-watering spread, burst whilst under pressure. No-one was injured though the potential for injury was high. During the investigation it was determined that the hose in question was not of sufficient pressure rating for the compressor output, though a correctly rated hose was available on-site. The hose was clearly marked with the correct pressure rating, but the supervisor had failed to carry out the checks specified in safe working procedures, prior to operation (which would have identified the hazard). This was despite having signed to confirm that he had done so.
Specific Equipment:	<i>No details available.</i>
Lessons Learnt:	The investigation highlighted a number of concerns, all of which have been addressed. Behavioural and procedural issues were involved, with a number of controls in place failing, due to the acts/omissions of one person. Companies must ensure that behavioural aspects of health and safety management are addressed as they have the obvious ability to over-ride all other procedural

measures. One of the positive developments to arise from this incident is a method for ensuring work-site checks are effectively undertaken by the on-site supervisor. The sub-contractor has implemented a system whereby each component/assembly of the pressure system is tagged by the supervisor after he has checked its suitability following work-site mobilisation, and pre-test. High visibility tags are utilised with the initials and date of inspection being handwritten by the supervisor. With this method employed, a supervisor must personally address each component of the spread in order to affix the tag. As he should be carrying out these checks and 'walking the line' anyway, the system does not require any additional duties from the supervisor. The tagging system also makes it easier for a non-specialist client to identify that the spread that has been confirmed fit for use.

Additionally, the tagging system merely ensures a contractors own safe working procedures are adhered to. The sub-contractor has embarked upon a series of training courses for its supervisory personnel in order to reinforce the requirement for effective equipment checks prior to operations and post-mobilisation. This system requires a minimal input of additional resources from a company but shall provide an effective method for ensuring the correct equipment is used on the worksite and that it has been checked by the responsible person.

Task Description: *No details available.*

Recommendations: The client company has approached other contractors engaged in similar activities and with whom it has a working relationship, to share information on the tagging system and encourage discussion on its adoption as a standard. The tagging system has been well received and adopted by the companies approached, as an effective way of ensuring their own safe working procedures are being adhered to by their own personnel.

Contact Details: Nick Fitzpatrick HSE Advisor 01224 407412

High visibility tag in use.



High visibility tag on a T-piece assembly



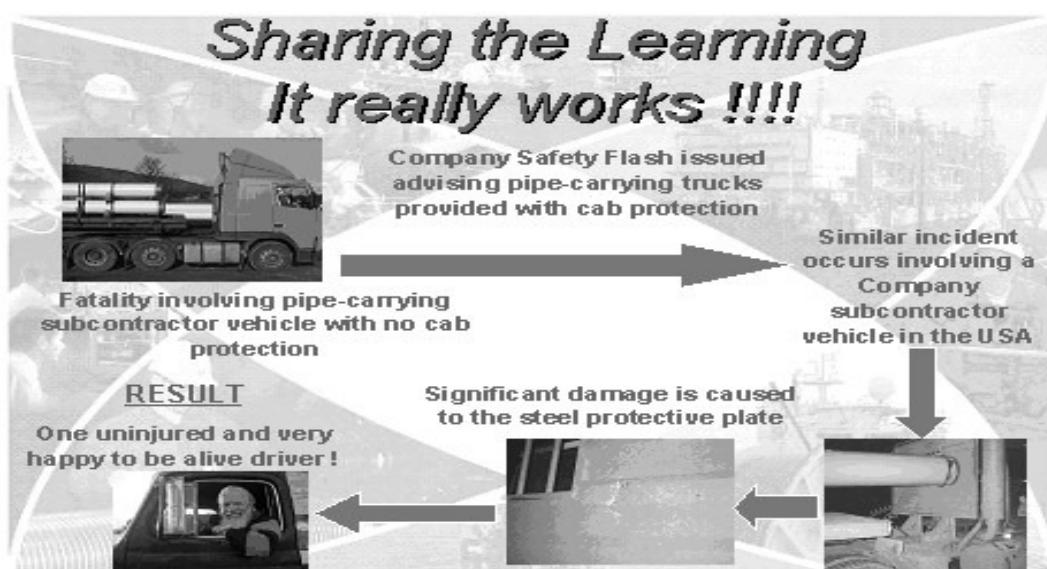
## 227: Sharing the Learning - It Really Works!

Summary:	Fatality occurred and recurrence prevented due to effective sharing of safety information.
Incident consequences (potential or actual):	<i>No details available.</i>
Cause of accident or incident:	<i>No details available.</i>
Activity Location:	*Any Location Type
Activity Type:	Land transport
Description:	A fatality occurred when a sub-contractor truck that was carrying lengths of steel pipe was forced to brake sharply. The forward momentum of the load caused one section of pipe to slide forward at speed and pass through the cab onto the road in front. The driver was killed. Immediately following the incident, a safety flash was issued to all areas of the company's worldwide operations detailing the incident and recommending the requirement for trucks carrying pipe to have cab protection installed. A few months later, a similar incident occurred in the USA. However, the cab had been protected by steel plate(which was significantly damaged in the incident), following the safety flash and a serious injury or fatality was prevented.
Specific Equipment:	<i>No details available.</i>
Lessons Learnt:	1. Requirement for all trucks carrying pipe sections to have cab protection fitted. 2. Methods of securing/stacking the pipe sections on the trailers should be assessed. 3. SHARING THE LEARNING REALLY WORKS !!

Task Description: *No details available.*

Recommendations: Any companies employing trucks carrying pipe sections, at any stage of their supply chain, can ensure a real risk of fatality is eliminated by having cab protection fitted to relevant units or trailers.

Contact Details: Nick Fitzpatrick HSE Advisor 01224 407412



## 228: Road Fatality - Badly Secured Load

Summary: Safety Alert following the fatality of a truck driver caused by a badly secured load.

Incident consequences (potential or actual): *No details available.*

Cause of accident or incident: *No details available.*

Activity Location: Specialist vessel eg diving, construction, survey

Activity Type: Land transport

Description: On the 24th May 2002, a truck and trailer combination was transporting a 25 ton mobile crane. Shortly after leaving, Yibal the driver had to break hard to avoid potholes in the road. Because of the momentum the crane broke free of its securing chains and crashed through the trailer headboard into the back of the truck killing the driver, Mohammad Arshad Hussain Lal Khan, on the spot. Mohammad was 31 years old.

Specific Equipment: *No details available.*

Lessons Learnt: The failures were: Wrong securing of the load: no chocks; wrong angle, size and position of chains. Wrong trailer: low bed should have been used (lower CoG, additional cab protection) Hazards not identified and controlled, poor rigging skills, poor supervision.

Task Description: *No details available.*

Recommendations: Low bed trailers with wooden decks must be used for transporting heavy plant and similar types of loads. Loads on trucks & vehicles must be tied down securely (no slack!) so they cannot move forwards, backwards, sideways or upwards (bounce!). Do not under-estimate

the forces on the load during the transport. Minimum specification for the tie-down/restraint system is to, as a minimum, be able hold the following forces: Forward movement:  $1.0 \times$  the weight of the load. Sideward (L&R) and backwards:  $0.5 \times$  the weight of the load Upwards movement:  $0.2 \times$  the weight of the load. Wheeled loads: use chocks front & back of each wheel, chocks must be tied down.

Contact Details: For further information see "drive to survive" website to download an excellent load securing guide, a code of practice and other details on this important topic.

The crane crashed into the cabin.



Low-bed trailer, chocks, chains (angle, size, positions)



## 229: LTI (2)-FAST RESCUE CRAFT (FRC) FALLS FROM DAVIT INJURING 2 OPERATIVES.

Summary: Safety Alert following an incident where a Fast Rescue Craft fell approx 70' to the sea with 2 persons still aboard.

Incident consequences (potential or actual): *No details available.*

Cause of accident or incident: *No details available.*

Activity Location: Fixed Installation

Activity Type: Sea transport

Description: A small work crew consisting of rig personnel and manufacturer technicians were changing the davit hoist line and load testing it. During the course of the task two roustabouts went aboard the FRC to attach the davit winch cable to the craft. Once attached, the FRC was being hoisted into its storage position with the roustabouts still aboard. This positioning was being done with the winch motor as opposed to manual operation. During the course of final positioning the electric winch motor control button froze in the up position, causing the boat's lift frame to be pulled into the winch drum. The lift frame eventually separated from the FRC causing the craft to fall approximately 70' into the water with the 2 roustabouts still aboard. The two roustabouts received multiple injuries, which include skeletal injuries to the leg, pelvis, back, arm as well as lacerations. None of these injuries were considered life threatening.

Specific Equipment: Fast Rescue Craft

Lessons Learnt: A Tripod investigation is in progress. A copy of the 'Fast Rescue Boat Incident Summary' can be found under

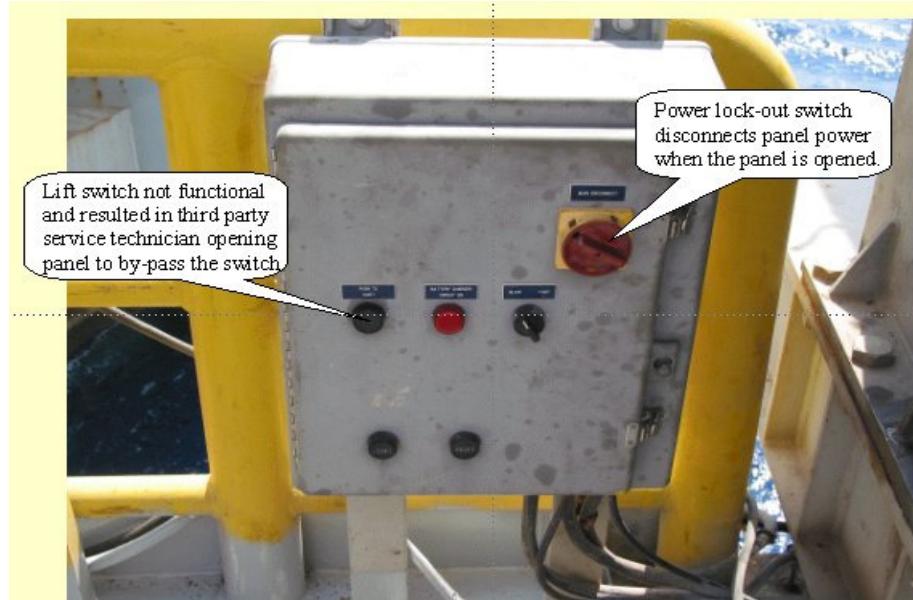
Change Presentation/Publications: Hazard Management /  
Fast Rescue Boat Incident Summary.

Task Description: *No details available.*

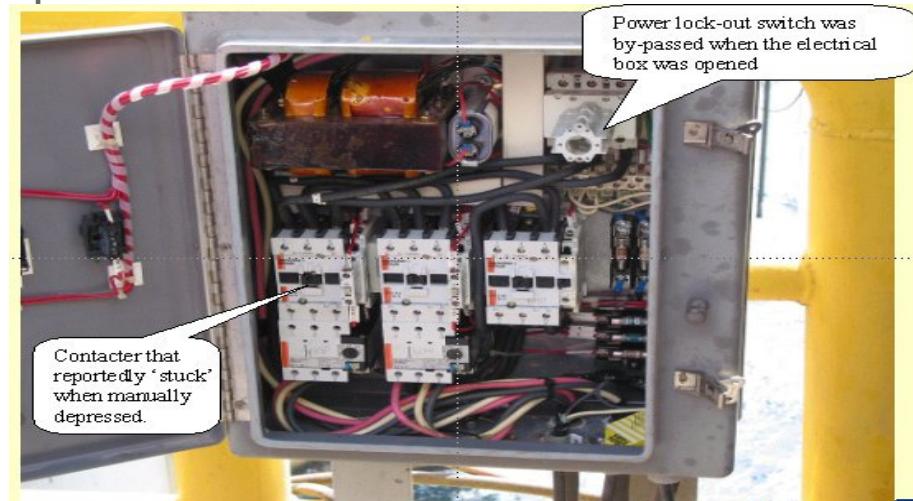
Recommendations: Ensure that proper and adequate risk assessment is carried out prior to commencing the task. This should include all personnel involved in the task and be carried out onsite.

Contact Details: None available

### FRB Control Panel



### Open FRB Control Panel



**Davit Assembly & Winch**



**FRB on deck after recovery**



## 230: Ignition of flammable vapours from uncertified portable electronic device (mobile telephone)

Summary:

Incident consequences  
(potential or actual):

Cause of accident or incident:

Activity Location: Fixed Installation

Activity Type: Inspection/testing

Description: A worker suffered second degree burns while looking for gas leaks inside the emergency shutdown system main pane cabinet on an offshore production platform. The panel uses natural gas for the pneumatic controls. While in the process of looking for the leaks, the cellular phone the worker was carrying rang. When he flipped it open, flammable vapours were ignited.

Specific Equipment:

Lessons Learnt: The cell phone was not certified by a recognised testing laboratory for use in flammable atmospheres Appropriate permits weren't secured for use of the phone and the cabinet had not been tested for flammable vapours The worker answered his phone while in an area known to contain flammable vapours.

Task Description:

*No details available.*

Recommendations: Portable electronic devices should be considered potential ignition sources unless certified for use in flammable atmospheres. Use ignition source/hot work permit procedures to rigorously control work in areas known to contain flammable atmospheres. Ensure high job

hazards awareness through pre-job safety discussions.

Contact Details: [MartyWelch@chevrontexaco.com](mailto:MartyWelch@chevrontexaco.com)

**Main Panel Cabinet**



**Cellular Phone**



## 231: Safety Matches

Summary: Man suffered injury from head of match being used to light cigarette

Incident consequences (potential or actual): *No details available.*

Cause of accident or incident: *No details available.*

Activity Location: Drilling unit

Activity Type: Drilling, workover

Description: Injured person was in smoking coffee shop when a piece off the end of a lighted match struck him in the left eye. The match had been struck by a person sitting directly opposite the injured party. The person lighting the match did so as per manufacturers guidelines, striking it away from his body. The injured person required examination and treatment at the eye clinic onshore.

Specific Equipment: *No details available.*

Lessons Learnt: 'Safety Matches' really aren't.

Task Description: *No details available.*

Recommendations: An alternative to matches has been sourced and sited in the smoking coffee shop and smoking rec room. These are electric 'car lighter' style. Matches, including those classed as 'safety matches' have been banned from this rig.

Contact Details: 'davek.thomson@sdlabz.com'

## 232: Dropped object - stainless steel cladding

Summary: Cladding became dislodged and fell from pipework.

Incident consequences  
(potential or actual):

Cause of accident or incident:

Activity Location: \*Any Location Type

Activity Type: \*Any Activity Type

Description: Corrosion developed between the stainless steel banding which secured stainless steel cladding onto process pipework. The cladding had been in place since the platform was commissioned offshore during 1992, the module was open to the prevailing elements and at various times had been subjected to sea water, during deluge testing. The corrosion developed over time and due to the fact that it developed between the two surfaces could not be detected by non-intrusive visual examination. Eventually this corrosion caused the securing bands to fail and subsequently the lower section of hemispherically formed cladding, weighing approximately 5.7 kilograms, became dislodged and dropped 6 metres deflecting off structural steel and associated pipework falling to the deck below. No personnel were in the area at the time, therefore no injuries occurred. Issues contributing to this accident – Corrosion developing between banding and cladding, this was not detected. · No routine inspection regime in place targeted at this particular form of corrosion. · Open module and lagging / cladding exposed to offshore environment / deluge water during testing.

Specific

*No details available.*

Equipment:

Lessons Learnt:

- Consideration must be given to corrosion forming in areas between stainless steel banding and cladding.
- Inspection regime required to ensure such areas are inspected / monitored.
- Where possible, form cladding on process pipework in complete sections rather than in two hemispherical parts.
- In vulnerable areas use additional cladding securing methods eg screws

Task Description:

*No details available.*

Recommendations:

- Where possible ensure cladding is not formed and fitted in this manner, if there is no other option then consider re-designing or fitting additional fixings eg screws.
- Inspect existing installations and if corrosion is detected carry out remedial action ( see attached risk matrix for guidance ).
- Establish an inspection regime to monitor for this potential failure mode.

Contact Details:

Carol Low 01224 835402

## 233: Saturn Uncontained Compressor Section Failures

Summary:	This revision to product advisory 8.7/112 provides an updated status of the investigation, revises impact models, and alerts users of a recent similar engine uncontained compressor section failure. The purpose is to alert users to a potential personnel safety issue resulting from an uncontained compressor section failure, which may involve risk of damage to property and serious bodily injury or death.
Incident consequences (potential or actual):	<i>No details available.</i>
Cause of accident or incident:	<i>No details available.</i>
Activity Location:	*Any Location Type
Activity Type:	Maintenance
Description:	There are currently approx. 2100 saturn 10 single-shaft engines operating in power generation applications world wide with approx. 174 million total operating hours. Two Solar Saturn 10 single shaft gas turbines have recently experienced uncontained compressor section failures at separate customer site. Both of these failures were reported to have occurred during the course of multiple start attempts and at a gas producer speed less than 100%. The first incident occurred during March 2002 and resulted in metal fragments penetrating the compressor section. This incident resulted in a fatality and equipment damage. A similar uncontained compressor section failure was reported during June 2002 and resulted in equipment damage. No injuries were reported with this incident.
Specific	<i>No details available.</i>

Equipment:

Lessons Learnt: Solar had initiated a failure investigation with the first failure but has been inhibited in completion due to inability to analyse any failed hardware, as the engine still awaits local country export clearances. The engine from the 2nd incident has been received at Solar, and a full analysis has been initiated to determine the root cause(s) of failure. Solar will provide additional information to users by way of an updated Product Advisory when all relevant data has been determined. Any operation recommendations will be communicated in a Service Bulletin.

Task Description: *No details available.*

Recommendations: Solar recommends that in order to avoid possible injury to personnel, users are cautioned to advise all personnel to avoid the area adjacent to the compressor section during an engine start and while the engine is in operation. See figure 1 for the locations of the engine area to be avoided. Users are also advised to ensure that all maintenance checks are performed on all package systems including control system and safety shutdowns, vibration monitoring, fuel, and fire systems and ensure that all are operating properly as set forth in your Operation and Maintenance Manuals.

Contact Details: *No details available.*

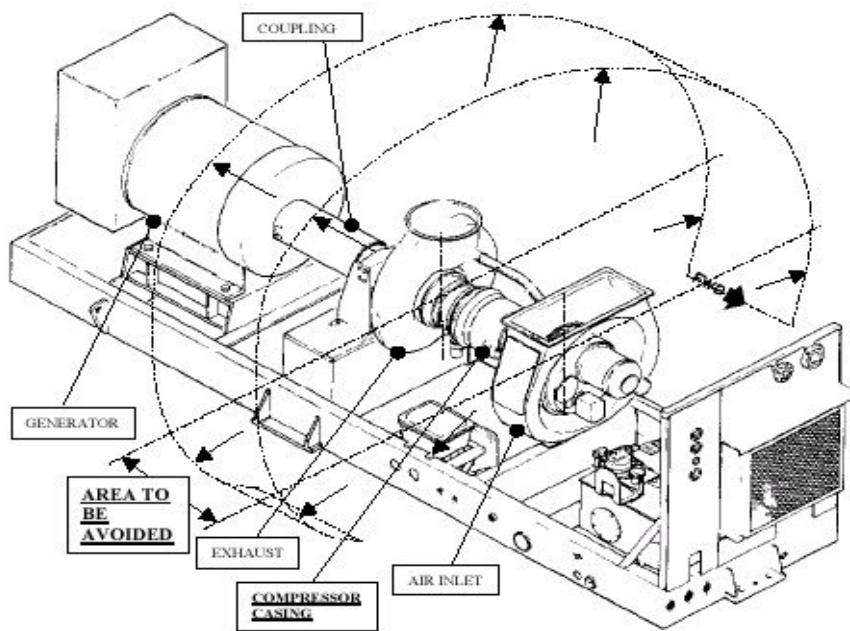


Figure 1. Typical Saturn® 10 Generator Set

## 234: Gas Release From Sight Glass

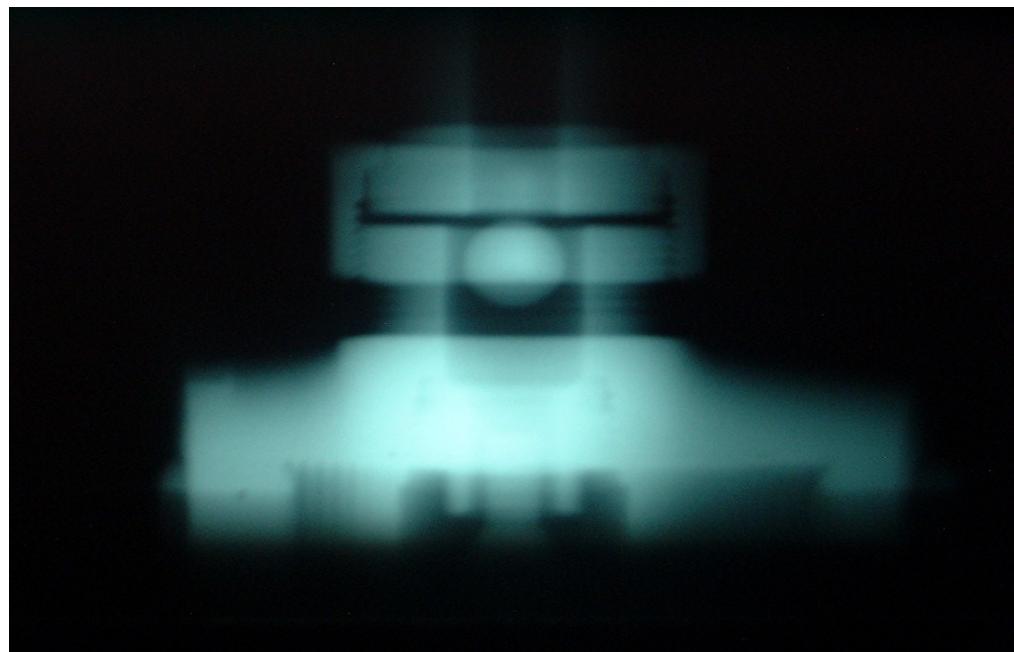
Summary:	Failure of a sight glass level gauge on a high-pressure gas Knockout Drum resulted in a significant gas release. On strip-down of the assembly it was discovered that the balls in both velocity check valves were missing. The design of this particular valve is such that the ball is not captive and could easily fall out during installation
Incident consequences (potential or actual):	<i>No details available.</i>
Cause of accident or incident:	<i>No details available.</i>
Activity Location:	Fixed Installation
Activity Type:	Production operations
Description:	Following failure of a sight glass level gauge on a high-pressure gas Knockout Drum the unit was shipped onshore and stripped down to identify cause of failure. The primary failure was fracture of the glass window on sight glass but the secondary safety device, the velocity check valve, should have limited the gas release. On strip-down it was found that the balls that perform the sealing function, were missing on both valves. There was no corrosion internally and no obvious way that the sealing device could have been ejected during the incident. The sight glass is about two years old. The implications of this are that a glass failure will result in an uncontrolled release rather than a limited release controlled by the velocity check valve.
Specific Equipment:	<i>No details available.</i>
Lessons Learnt:	1) Checks should be made during installation of sight glass to ensure check valve integrity 2) Monitor condition

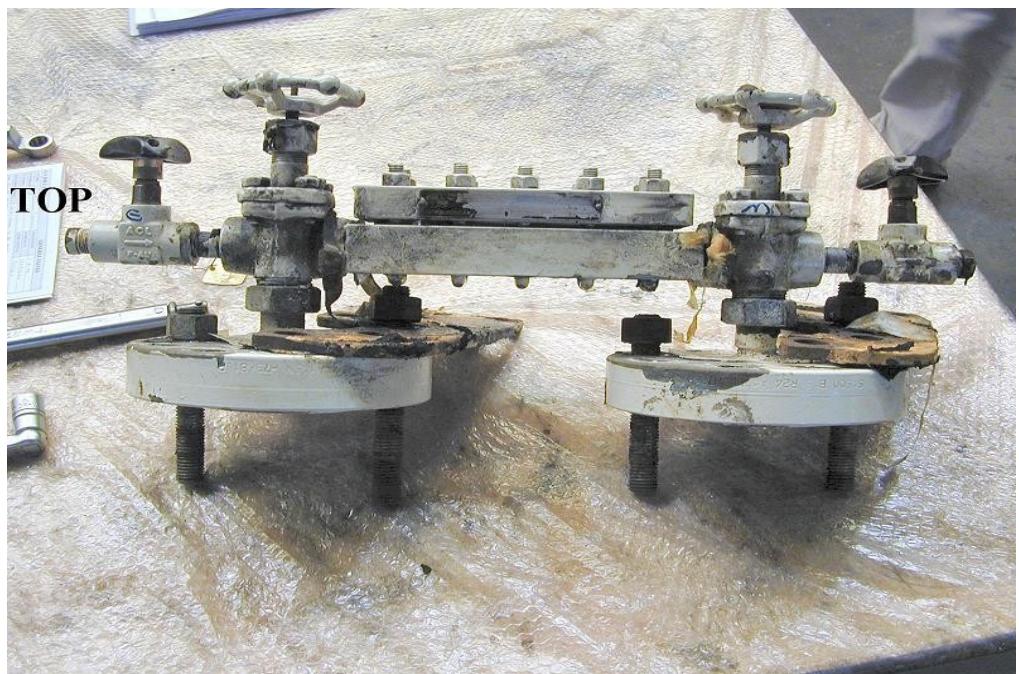
of sight glasses in operating condition for evidence of incipient failure

Task Description: *No details available.*

Recommendations: It is recommended that other operators check the type of velocity check valve fitted on sight glasses within their process plant and if the design of the valve is such that the ball is not captive, checks should be carried out to confirm presence of the sealing ball. Trials have been completed to confirm it is possible to do this non-intrusively with radiography. Alternatively intrusive checks can be performed.

Contact Details: Talisman HSE&amp;A Department





## 235: Objects Placed Inside Scaffold Tubes

Summary: Description of three near miss incidents recorded in the last two months where items were placed inside scaffold tubes, only to fall out when the tubes were dismantled or moved.

Incident consequences (potential or actual): *No details available.*

Cause of accident or incident: *No details available.*

Activity Location: Fixed Installation

Activity Type: Maintenance

Description: To date in 2002, Rigblast have recorded three near miss incidents as a result of people placing items inside scaffold tubes. Specifically, the items in question were a brush handle and two lengths of steel rod. Whilst the tubes were being dismantled or moved from the scaffold rack, the items fell out. The brush handle and one of the steel rods fell to the deck, narrowly missing the scaffolders and the second steel rod fell onto and through the gratings to the sea below. Potentially these near misses could have been far more serious. The scaffolders could have sustained serious injuries if the items had hit them and had the scaffold rack involved been anywhere else other than the cellar deck in the third incident, then potentially the steel rod could have hit someone working below, rather than falling to sea. One can only speculate as to how serious the outcome would have been in these circumstances. End caps on all scaffold tubes will help to prevent similar incidents in the future, however it is more important to emphasise to all personnel working offshore that placing items inside scaffold tubes is unsafe behaviour and all steps should be taken to stop this

practice. Hopefully highlighting these incidents either through SADIE or at safety meetings will result in future incidents of a similar nature being eliminated.

Specific Equipment: *No details available.*

Lessons Learnt: The main learning point is that these incidents could easily have resulted in serious injury. The people who placed the items inside the scaffold tubes perhaps genuinely did not realise the possible results of their actions.

Task Description: *No details available.*

Recommendations: This issue needs to be highlighted to all personnel as a matter of urgency. As a company we have already asked our offshore supervision to highlight these incidents at their safety meetings in an attempt to eliminate these sorts of behaviours and we would encourage other companies personnel to do likewise.

Contact Details: Steven Law&

## 236: De-scaling using acid limescale remover

Summary: Regular use of limescale remover caused a leak in a bain marie due to corrosion of an element.

Incident consequences  
(potential or  
actual):

Cause of accident or incident: *No details available.*

Activity Location: Any Location Type

Activity Type: Catering / hotel services

Description: One of the vessels had a bain marie element replaced two weeks ago. When it was refilled, some Lime-a-Way (acid limescale remover) was added to the water to help reduce the limescale. This application became a regular part of the cleaning routine. After two weeks a leak had developed and on investigation, the brass fitment of the element had corroded.

Specific Equipment:

Lessons Learnt: The active ingredient in Lime-a-Way to reduce limescale is phosphoric acid.● Phosphoric acid will corrode all soft metals, such as brass.●

Task Description: *No details available.*

Recommendations: Frequent frequent application of reduced dilution is preferred i.e 5● minutes every week using a dilution of one part Lime-a-Way to ten parts water, Application must be●instead of a stronger solution applied less frequently. Appropriate●carried out under supervision following a safe system of work. controls, as documented within the Manufacturers Safety Data Sheet, must be applied.

Contact Details: Neill Murray,&

## 237: Damaged Cabling Due to Solenoid Malfunction

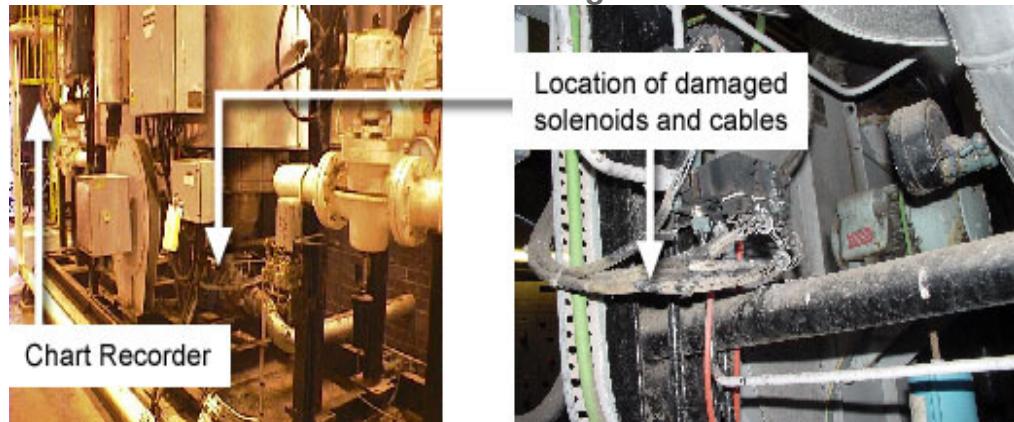
Summary:	A solenoid valve and associated cabling were severely damaged due to a control fuse failing to trip on solenoid malfunction.
Incident consequences (potential or actual):	<i>No details available.</i>
Cause of accident or incident:	<i>No details available.</i>
Activity Location:	*Any Location Type
Activity Type:	*Any Activity Type
Description:	A chart recorder used to record the temperature of the drier regen unit had apparently stopped working. On further investigation it was found that a 6-amp fuse in the control panel of the drier unit had blown and the whole drier unit had stopped working. The fuse was replaced and within 10 seconds of re-energising the circuit smoke was observed emanating from the rear of the control panel. The control panel was isolated and further investigation revealed that the drier solenoid valve and associated cabling had been severely damaged by overheating resulting in the conductors being exposed.
Specific Equipment:	<i>No details available.</i>
Lessons Learnt:	<ol style="list-style-type: none"><li>1. The control fuse was rated to protect the entire circuit but failed to trip on solenoid malfunction.</li><li>2. Cable insulation material should be specified to withstand operating temperatures.</li><li>3. A thorough assessment of the underlying cause of failure should be carried out before fuses are replaced.</li></ol>

Task Description: *No details available.*

Recommendations: Before replacing a blown fuse ensure a thorough assessment is conducted to determine the underlying cause of the failure.

Contact Details: *No details available.*

### **Location of Chart Recorder and Damaged Solenoids and Cables**



## 238: Failure of Temporary Gasket lead to Diesel Discharge

Summary: In April 2002, a temporary gasket on a base diesel filter failed leading to approx 0.2 tonnes of diesel being discharged to sea and spillage inside a John Brown turbine diesel compartment.

Incident consequences (potential or actual): *No details available.*

Cause of accident or incident: *No details available.*

Activity Location: \*Any Location Type

Activity Type: Maintenance

Description: A wireline supervisor alerted the Control Room when he smelled diesel around the east side of the platform. Upon investigation, it was found that the lid gasket for the John Brown turbine on the base fuel oil filter had failed. The diesel system was isolated and the leak stopped. An estimated 0.2 tonnes (approx 1 bbl) of diesel was spilt to the sea.

Specific Equipment: *No details available.*

Lessons Learnt: In this case, a manufacturer's specification replacement was not available and a temporary gasket had been fitted. It is important to ensure that the correct specification spares, as recommended by the manufacturer, are fitted. Maintenance programmes need to take account of possible long-lead delivery times on spares.

Task Description: *No details available.*

Recommendations: 1. Obtain and fit correct specification spares. 2. Review maintenance system and records for similar occurrences.

Contact Details: Hywel Evans, HE&S Manager ChevronTexaco Upstream Europe Tel: 01224 334196 e-mail:  
[HywelEvans@chevrontexaco.com](mailto:HywelEvans@chevrontexaco.com)

## 239: Lifeboat Davit Release System

Summary: On a normally unattended installation, (NUI), the release mechanism for a lifeboat failed to operate.

Incident consequences (potential or actual): *No details available.*

Cause of accident or incident: *No details available.*

Activity Location: \*Any Location Type

Activity Type: \*Any Activity Type

Description: The Neptune platform TEMPSC and davit were being routinely checked for operability during a visit to the normally unattended installation, (NUI). The release system is hydraulic, as opposed to the standard mechanical type. It was discovered that the hydraulic accumulator, (bladder type), which is required for release of the holding brake, did not possess any fluid pressure or charge pressure. As a consequence the TEMPSC could not have been released from the davit.

Specific Equipment: *No details available.*

Lessons Learnt: · The hydraulic system pressure had decayed to zero. Regular checks must be carried out. · There was no pressure indicator on the hydraulic system that could provide immediate visual indication of the system status. · Without sufficient hydraulic pressure, the TEMPSC cannot be released from the davit. There is no override to the hydraulic release system.

Task Description: *No details available.*

Recommendations: · Operators should review their davit release systems in order to satisfy themselves that they are at all times able

to affect a launch of their TEMPSCs. · Manufacturers agreed modification to this system is the inclusion of a check valve and pressure indicator on the hydraulic pump discharge line to the accumulator.

Contact Details: Mervin Hardy, Mechanical Engineer, bp Southern North Sea. Tel: 01964 65 2142.

## 240: Dropped Load During Knuckle Boom Crane Operations

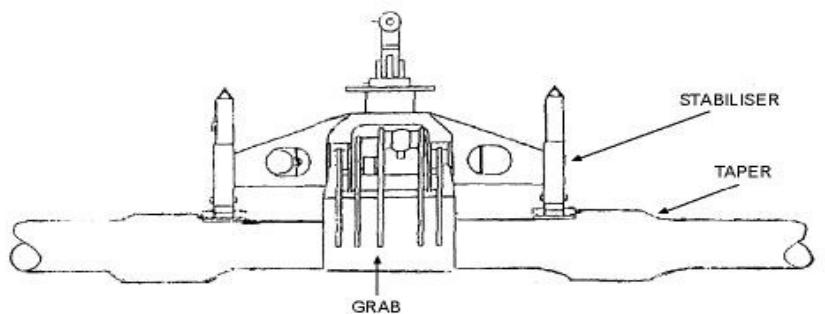
Summary:	During routine crane operations a tubular slipped from the grab and fell to the deck
Incident consequences (potential or actual):	<i>No details available.</i>
Cause of accident or incident:	<i>No details available.</i>
Activity Location:	*Any Location Type
Activity Type:	*Any Activity Type
Description:	During routine knuckle-boom crane operations a number of tubulars that featured 'double upsets' had to be moved from the catwalk. On the sixth such lift a tubular slipped from the grab and fell 5ft to the deck. It is possible that the stabilisers were contacting the tapered profiles on either side of the 'upsets', which would have contributed to the grab not setting around the tubular correctly.
Specific Equipment:	<i>No details available.</i>
Lessons Learnt:	<ol style="list-style-type: none"><li>1. When lifting double upset tubulars, the effectiveness of the grab may be compromised if the stabilisers are contacting the tapers or upsets.</li><li>2. No consideration had been given of the following tolerances prior to handling the tubulars:<ol style="list-style-type: none"><li>a. The width of the grab and the space between the double upsets.</li><li>b. The grab setting position against the maximum/minimum diameters of the tubulars.</li></ol></li></ol>
Task Description:	<i>No details available.</i>
Recommendations:	1. Prohibit knuckle-boom cranes handling tubulars that feature double upsets until an engineered solution

can be developed.

2. Rig Manager or Senior Well Engineer to conduct a review of similar tubulars likely to be handled to establish their specification. Review these against the operating parameters of the knuckle-boom crane grab to establish whether alternative grab settings can be utilised.

Contact Details: *No details available.*

#### Potential Position of the Grab when Handling Double Upset Tubulars



## 241: Needle Gun Incident

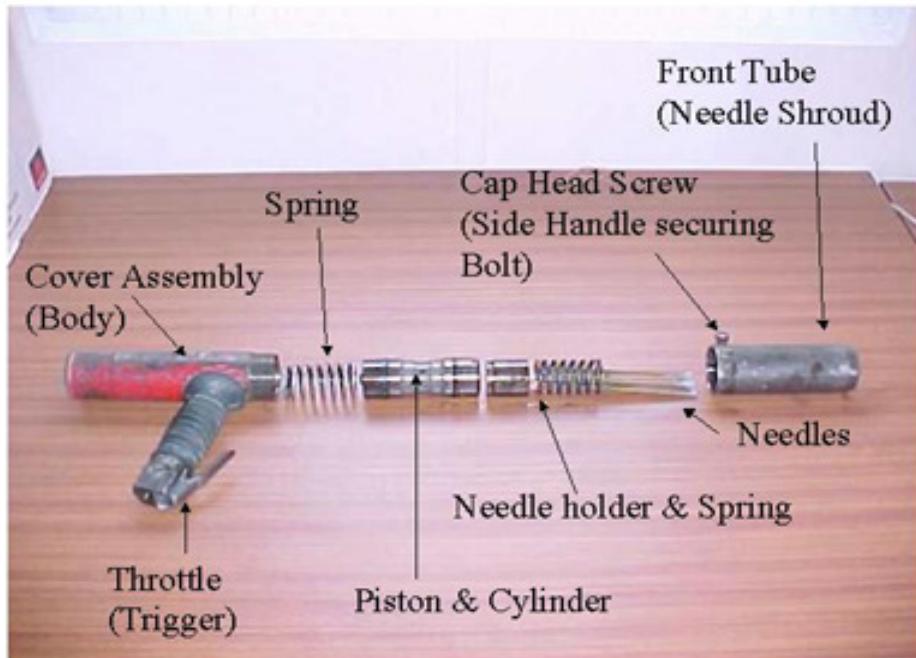
Summary:	During operation, the needle shroud on a needle gun became detached allowing the piston and cylinder to fly out.
Incident consequences (potential or actual):	<i>No details available.</i>
Cause of accident or incident:	<i>No details available.</i>
Activity Location:	*Any Location Type
Activity Type:	*Any Activity Type
Description:	While being operated the needle shroud on a needle gun became detached allowing the piston and cylinder to fly out, with the potential to cause injury. The follow-up investigation concluded that the presence of water in the air supply and the repeated, rapid operation of the trigger mechanism to remove it had caused the retaining screw on the needle shroud to work loose and the shroud to unscrew
Specific Equipment:	<i>No details available.</i>
Lessons Learnt:	<ol style="list-style-type: none"><li>1. The rapid operation of the trigger to remove water from the line was a common practice but not covered by procedures or manufacturers recommendation.</li><li>2. An on/off isolation valve was not located in the air hose near the tool as recommended by the tool manufacturer.</li><li>3. The quality of the air required to operate the needle gun had not been communicated to the compressor supplier and thus the unit was not provided with a means of removing moisture.</li><li>4. Operators should be aware of the requirement to</li></ol>

drain any water in the system prior to connection to an air hose.

Task Description: *No details available.*

- Recommendations:
1. Ensure that the specification of the equipment for air supply are compatible with the requirements of the needle gun (or other air tool) manufacturer.
  2. Ensure that all operators of needle guns (or other air tools) are aware of the procedures to follow in the event of water being present in the air supply, e.g. using suitably located drain points.

### Needle Gun Overview



## 242: Hand Trapped Between Kill Line and BOP Valve Spool

Summary: IP trapped hand whilst nippling down BOP's.

Incident *No details available.*  
consequences  
(potential or  
actual):

Cause of accident *No details available.*  
or incident:

Activity Location: Fixed Installation

Activity Type: Drilling, workover

Description: Whilst nippling down 13 5/8 BOP's Riser, Kill and Choke lines, the I.P. was in the process of disconnecting the kill line when it swung side ways, kicking the clamp off and resulting in the I.P. trapping his right hand between the flexible line and the BOP kill line outlet spool. The subsequent offshore investigation identified the following; Immediate cause as being inadequate risk assessment and the I.P. admitted lack of care and attention Root cause as being inadequate leadership and risk management.

Specific *No details available.*  
Equipment:

Lessons Learnt: *No details available.*

Task Description: *No details available.*

Recommendations: 1. The investigation identified the need to review work guidelines and risk assessment with all involved personnel and amend as required based on lessons learnt. 2. Sufficient time out for safety to be taken when nippling up and down the BOPs. 3. Investigate and if practical install restraining/guidance device to reduce risk when removing or installing flexible lines or hoses.

Contact Details: Robert Hirst, TotalFinaElf Exploration UK PLC on 01224  
297891.

## 243: Barton Industries Differential Pressure Indicator Containment Failure

Summary: A Barton Industries Differential Pressure Indicator failed in service resulting in a diesel release.

Incident consequences  
(potential or  
actual):

Cause of accident or incident:

Activity Location: \*Any Location Type

Activity Type: \*Any Activity Type

Description: Diesel was discovered spraying from a Barton Industries Differential Pressure Indicator. The bolts clamping the two block modules at the rear of the gauge had failed. Investigations with the manufacturer, Barton Industries, identified that this was not the only case of such a failure that they had been made aware of. Barton Industries were upgrading the material specification for the bolting. It is noted that another Operator has experienced a failure in service of a Barton Industries Differential Pressure Indicator and a SADIE alert was issued on 28/1/2002 – Number 172.

Specific Equipment:

Lessons Learnt:

Task Description:

Recommendations: 1. Bolts on pressure containment instruments should be carefully inspected and where possible checked by slackening and retightening during routine maintenance.  
2. Inspect and replace any steel bolting on Barton DP equipment that are showing signs of corrosion. Replace

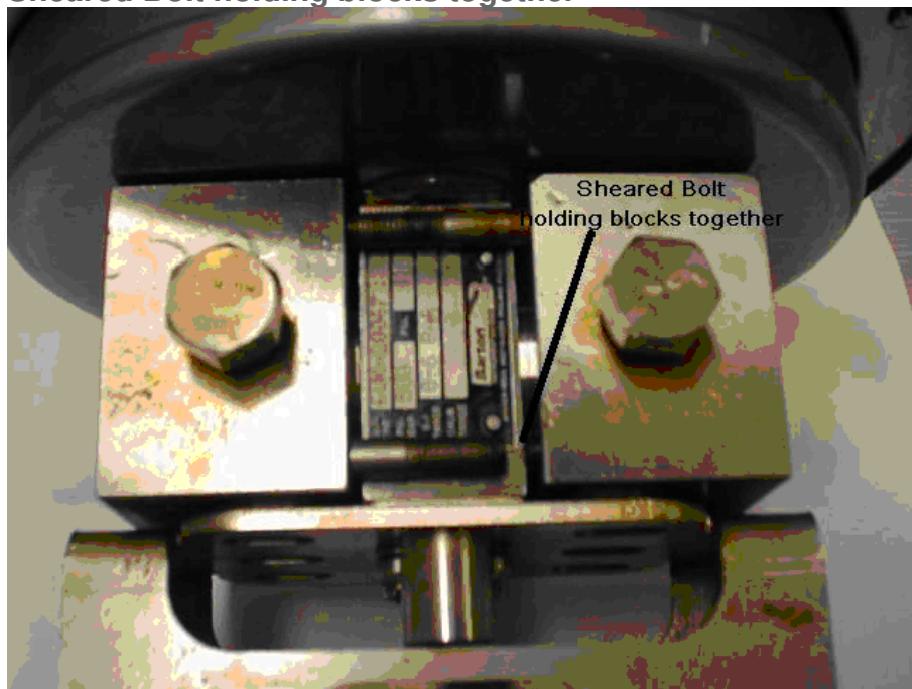
with correct specified bolts supplied from Barton.

Contact Details: Robert Hirst, TotalFinaElf Exploration UK PLC on 01224 297891.

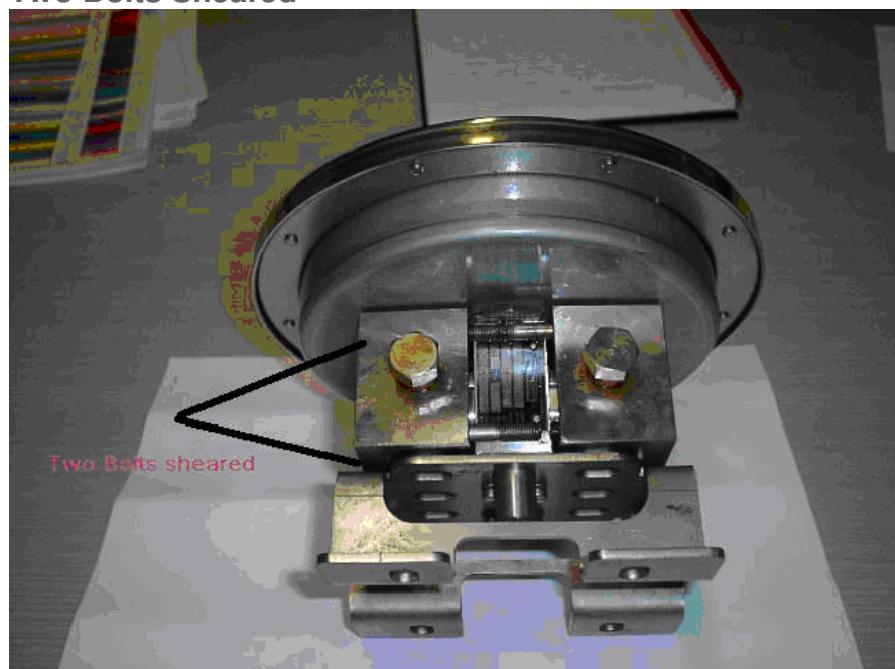
#### Barton Differential Pressure Indicator



#### Sheared Bolt holding blocks together



**Two Bolts Sheared**



## 244: Explosion inside power turbine exhaust

Summary:

Incident            *No details available.*

consequences  
(potential or  
actual):

Cause of accident    *No details available.*

or incident:

Activity Location:   Fixed Installation

Activity Type:   Maintenance

Description:   A flameout of the "B" power turbine occurred as it was about to be synchronised and placed on load with power turbine "C". As the machines were attempting to synchronise the "B" machine received all the relevant signals that should have an immediate flameout trip. While the turbine did shutdown about 4 seconds after this, the shutdown was due to a power turbine underspeed trip and not a flameout trip. The "B" power turbine did not trip following flameout and diesel fuel continued to be fed into the turbine. The fuel vapourised and mixed with the air flow through the turbine creating an explosive mixture, which was ignited by the heat in the exhaust collector, this caused an explosion and substantial damage to the power generator, exhaust stack & WHRU. It has been estimated that 3 litres of diesel were involved in this explosion.

Specific  
Equipment:   *No details available.*

Lessons Learnt:   The explosion in the turbine exhaust was caused by unburned diesel fuel vapourising inside the exhaust ducting, mixing with air to form an explosive mixture, and igniting when it reached its spontaneous ignition temperature. The unburned diesel, about 3 litres, was

passed into the exhaust duct when the gas turbine engine suffered an undetected flameout. The failure to detect the flameout was due to the flameout detection trip having been intentionally temporarily disabled by a control software modification installed by the turbine vendors representative as part of an attempt to trouble-shoot and tune out control instability that was being experienced. The same flameout trip override had been installed on the "A" and "C" units, but has subsequently been removed. It is apparent the vendor representatives, in making the software change, did not fully understand the operation of the compressor discharge pressure switch nor the potential consequences of overriding the flameout trip. The temporary software modification was not discussed with the vendors HQ engineering personnel nor was a formal risk assessment of the change made.

Task Description: *No details available.*

Recommendations:

- 1.Issue OIMs instruction to ensure that the requirements of the programmable electronic software(PES) change Control process to reflect the learnings from the incident.
- 2.Update the PES change Control procedure to reflect the learnings from the incident.
- 3.Commission a review of the PES system including highlighting strengths and deficiencies and recommend enhancement. Establish way forward after review with additional corrective actions if necessary.
- 4.Ensure all responsible persons are trained in the PES system and how it works.
- 5.Identify and review implications from similar equipment where PLCs control key safety systems e.g. compressors, fire pumps.
- Establish list of further actions if necessary.
- 6.Investigate which components of the generator package are safety critical and update the verification scheme accordingly.
- 7.Investigate and report on the need for overpressure protection on turbine enclosures

**VENDOR ACTIONS**

- 1.Review the existing software change control procedure and update to improve field implemented software changes.
- 2.All UK field personnel are to be trained in

software “task risk assessment” and HAZOP Analysis.

3. Review and modify as necessary the configuration software for all “safety critical shutdowns”. 4. Review tuning parameters for fuel control system software to ensure the compliance with company standard composite.

Contact Details: BOL Offshore SEQA Advisor - 01224 327122, e-mail ;  
[safetyad@bol.co.uk](mailto:safetyad@bol.co.uk)

## 245: TRANSFORMER OVERHEATED AND CAUGHT FIRE

Summary: A lighting transformer (440v/110v) had been set up on the poop deck fed from a 440V welding socket for work inside a ballast tank. At approx. 20:30 hours the same day a Construction crew member noticed a smell of burning as he rounded the corner of the poop deck. He saw the lighting transformer on fire and generating lots of black smoke.

Incident consequences (potential or actual): *No details available.*

Cause of accident or incident: *No details available.*

Activity Location: \*Any Location Type

Activity Type: \*Any Activity Type

Description: A lighting transformer (440v/110v) had been set up on the poop deck fed from a 440V welding socket for work inside a ballast tank. The transformer was powering a cable feeding a 4 plug 'spider' that was powering three halogen lights inside the tank. The system was set up in the early afternoon and worked satisfactorily until the end of dayshift. The system was left powered up at shift change and was still working OK at the start of nightshift. At approx. 20:30 hours the same day a Construction crew member noticed a smell of burning as he rounded the corner of the poop deck. He saw the lighting transformer on fire and generating lots of black smoke. He covered the transformer with fire blanket until the flames were extinguished then unplugged it and pulled it away from adjacent cables, pipework and welding set. He called his Foreman who went to the scene with Construction Supervisor. After allowing the transformer to cool under

the fire-blanket they moved it to a clear area then doused it with water. The transformer lid was some distance from the main body, indicating that it had blown off prior to the fire being discovered. The on shift Asset Supervisor was informed and immediately attended the incident and an investigation was undertaken

Specific Equipment: *No details available.*

Lessons Learnt: 1. The transformer had inappropriate protection on the primary and secondary sides as a special order was placed and the requirement to be manufactured in accordance with British Standards was not stated

Task Description: *No details available.*

Recommendations: 1. Portable transformers must comply with BS3535. This specification requirement must be complied with when purchasing portable transformers. 2. Remove all transformers of the same specification from service 3. Review and improve the testing routine for transformers, 'spiders', plugs and cables.

Contact Details: Rick Faulkner, Chevrontexaco Upstream Europe, Seafield House, Hill Of Rubislaw, Aberdeen. AB15 6XL. Tel: +44 1224 334133 E-Mail: RIFJ@chevrontexaco.com

## 246: 'Anatomy of a Confined Space Fire' - Case Study & Lessons Learnt

Summary:	A tank at a Petroleum tank farm at the Port of Anchorage, AK, burst into flames. Although no one was seriously injured or killed, it could have easily been otherwise. The attached article explores in detail, the fire and its causes, as well as lessons that can be learned from this incident. Please refer to the case study document in the Publications section of the website by clicking on the link - Anatomy of a Confined Space Fire - Case Study (SADIE 303) - shown under the Related Information heading below."
Incident consequences (potential or actual):	<i>No details available.</i>
Cause of accident or incident:	<i>No details available.</i>
Activity Location:	Supply base, warehouse, workshop, dock
Activity Type:	Maintenance
Description:	The operation being performed at the time of the incident was not hot work, but the tank cleaning by a contractor specialising in this operation. The previous cargo was jet fuel but except for the last loading, it had contained naphtha. The cleaning job included removal of the log seal around the perimeter of the floating roof. All necessary precautions for working within a confined space were taken. Please see attached for a full description of what happened.
Specific Equipment:	Petroleum storage tank
Lessons Learnt:	Several lessons can be learned from this incident including: Ignition Sources Seal Type Emergency

Personnel & Equipment Unobstructed Egress Fire  
Rescue Personnel Please see attached report for more  
detail.

Task Description: *No details available.*

Recommendations: Employers should train employees to be especially cautious in situations where static generation is possible, particularly when working around hollow structures, such as log seals, associated with confined spaces.

Contact Details: None available.

## 247: Gas Condensate Leak from Export Pump

Summary:	Gas condensate leaking from from a (HPCP) export pump ignited once the retaining flange was disconnected using a heating torch.
Incident consequences (potential or actual):	<i>No details available.</i>
Cause of accident or incident:	<i>No details available.</i>
Activity Location:	Supply base, warehouse, workshop, dock
Activity Type:	Maintenance
Description:	An incident occurred in the workshop where gas condensate leaking from a (HPCP) export pump ignited once the retaining flange was disconnected using a heating torch. Fire fighting equipment was used to extinguish the fire and no harm or damage resulted. These units are normally flushed with water prior to shipment to any onshore workshop locations but it is believed that in this instance this may not have been carried out.
Specific Equipment:	<i>No details available.</i>
Lessons Learnt:	<i>No details available.</i>
Task Description:	<i>No details available.</i>
Recommendations:	<b>Offshore</b> Review procedure for shipping equipment to onshore workshops with respect to: 1) Requirements for units to be flushed and arrangements for decontamination when necessary. 2) Provide confirmation of flushing/decontamination and also provide safety data sheets for equipment which may contain hazardous/volatile substances. <b>Onshore</b> 1) Ensure that

units being dismantled do not contain hazardous/volatile substances, i.e. check paperwork for item 2)above. 2)  
Assess risks and increase awareness when dismantling units. Care must be taken in case some residue may be trapped in inaccessible areas of the component parts of the unit.

Contact Details: [hhayati@sulzerwood.co.uk](mailto:hhayati@sulzerwood.co.uk)

## 248: DOUBLE FLUORESCENT LIGHT FITTING EXPLODED

Summary:	There was a high potential for personal injury when a double fluorescent light fitting situated on a main deck walkway exploded as a Marine Operator was walking past, sending shards of plastic and pieces of metal 20 feet.
Incident consequences (potential or actual):	<i>No details available.</i>
Cause of accident or incident:	<i>No details available.</i>
Activity Location:	Floating production/storage unit
Activity Type:	*Any Activity Type
Description:	A double fluorescent light fitting by the main deck starboard walkway exploded with a loud bang just as a Marine Operator was walking past, sending shards of plastic and pieces of metal 20 feet. The Marine Operator was shocked but unhurt, however, there was a high potential for personal injury with this incident. In this instance, a circuit breaker did not trip, and the circuit was eventually isolated by an Electrical Technician. Investigation found gaps in the 'O' ring seals that allowed water ingress into the light fitting.
Specific Equipment:	<i>No details available.</i>
Lessons Learnt:	From the tests and assessments conducted, it is evident that sea water entered the light fitting to such a depth that electrolysis could take place to form a flammable gas/air mixture, which was subsequently ignited, probably by a further discharge from the same source as that causing the electrolysis. The discharge most likely originated in the area of the lamp holder. From the examination of the

original and modified diffuser/seal assemblies, it is evident that the seal height varies from unit to unit and at various points on the same unit. The IPx7 tests suggest that a minimum seal height of 4mm is required in order for the unit to pass the ingress protection test.

Task Description: *No details available.*

Recommendations: We are currently in the process of replacing the fluorescent light fittings, GLAMOX ECGX232.

Contact Details: Rick Faulkner, ChevronTexaco Upstream Europe,  
Seafield House, Hill of Rubislaw, Aberdeen AB15 6XL.  
Tel: +44 1224 334133; e-mail rifj@chevrontexaco.com

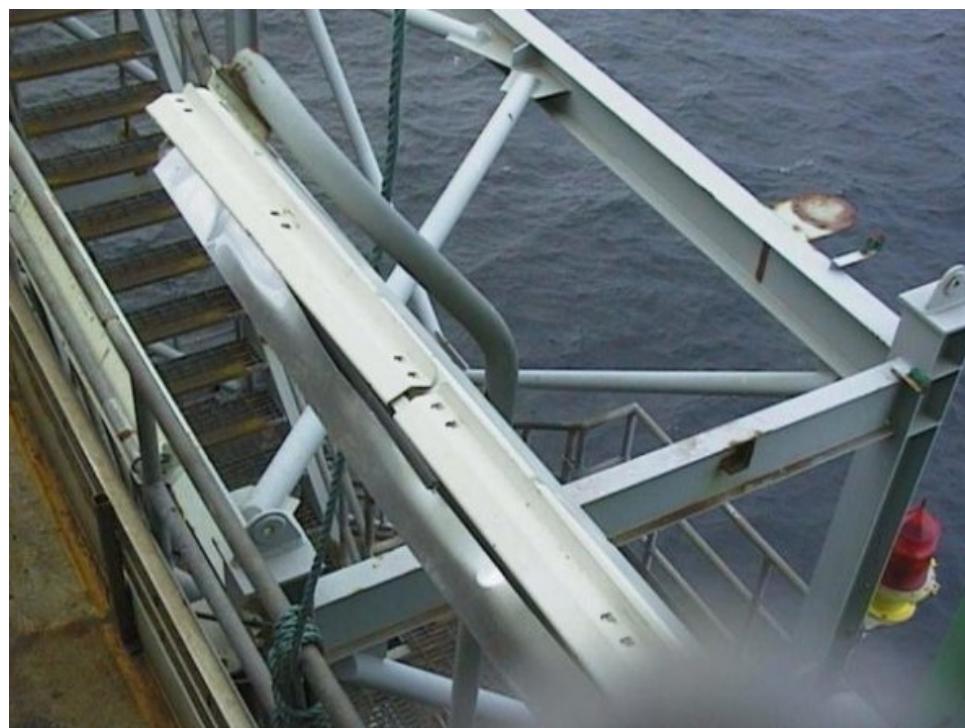
#### **Looking up at damaged light fitting**



**Shards of plastic and metal from light fitting**



**View of light fitting over walkway**



## 249: Vacuumed Cleaning Of Cement Silo

Summary: To raise awareness of the hazards involved with Vacuumed cleaning of cement silo's

Incident consequences (potential or actual): *No details available.*

Cause of accident or incident: *No details available.*

Activity Location: Onshore office, support base, heliport

Activity Type: Maintenance

Description: During the cleaning of a cement silo, a vacuum truck was attached to the tank to suck out residual cement left in the bottom of the tank. After about 5 mins unloading at a pressure of 0.4 bar (6psi) the tank imploded. On investigation it has been determined that the design of the internal vent is not sufficient to allow for the use of vacuum cleaning due to the very small clearance area. If this area become restricted the tank cannot fill with air as quickly as the vacuum is sucking it out.

Specific Equipment: Cement Silo

Lessons Learnt: Documented Procedures have been updated and to be followed at all times. Task to be performed by approved competent person. Risk assessment to be documented and reviewed prior to operation. Equipment maintenance & integrity program to be in place and followed.

Task Description: *No details available.*

Recommendations: Task to be performed by approved competent person. Risk assessment to be documented and reviewed prior to operation. Equipment maintenance & integrity program to

be in place and followed.

Contact Details: Richard Taylor &

## 250: Uncontrolled Descent of Casing Joint

Summary: Uncontrolled descent of casing joint from V door, the pin end slewed across the pipe deck roughly about 2m off the deck striking an upright stanchion, whilst the box end was dragged along the catwalk.

Incident consequences (potential or actual): *No details available.*

Cause of accident or incident: *No details available.*

Activity Location: Fixed Installation

Activity Type: Drilling, workover

Description: Drilling commenced pulling 9-5/8 casing. The first joint of casing was passed through the V-door and was rested against the pipe stop on the catwalk. The box end was positioned at the top of the V-door pipe slide in order to unlatch the Single Joint Elevators from the main blocks and attach the Single Joint Elevators to the drill floor tugger for running the joint out of the rig floor. At the same time a deck roustabout attached a sling to the casing joint pin end, which had been lowered against the pipe stop, and then hooked this sling onto the crane line. The elevators attached to the block were removed but before the Single Joint Elevators could be attached to the box end (in order to lower the casing joint safely to the horizontal position on the cat walk) the crane operator picked up tension on the crane line to commence the lift and this was enough to lift the pin end over the pipe stop. The crane operator was not given any instruction or signal to lift the load, but proceeded assuming that the box end was connected to the drill floor tugger. The box end of the casing slipped out of the V-door and drove the casing joint along the catwalk in an uncontrolled manner.

As the position of the crane boom had not changed the line tightened on the end of the casing joint and lifted it off the catwalk so that it cleared the catwalk bump stop. The joint continued past the bump stop over the pedestrian walkway striking a metal stanchion 2.5m above the deck and 2m from the catwalk end. The casing joint bounced back coming to rest against the bottom of the V-door and 1m above the catwalk bump stop still suspended from the crane.

Specific Equipment: *No details available.*

Lessons Learnt: *No details available.*

Task Description: *No details available.*

Recommendations: 1. The risks associated with the operation to pull and lay down casing should be reviewed in light of this incident and any associated procedures and work guidelines should be revised accordingly. 2. Any lifting operation to transfer loads between the drill floor and the pipe-deck should be under the control of a responsible person who should ensure that the work is planned, work guidelines are communicated to all personnel and the work is executed safely. 3. The competence of all Crane Operators should be verified. 4. An engineering review should be carried out to determine if alternative means of mechanical handling could be used; eg the addition of a catwalk tugger would eliminate the need to use the platform crane in this operation.

Contact Details: Robert Hirst at TotalFinaElf Exploration UK PLC on 01224 297891



Side door elevators are used to lift up casing into derrick and then lower down as pin end is passed through the V-door to secure it against the pipe stop on the catwalk.

Single joint elevators are latched onto casing joint once it has been put through the V-door and secured against the pipe stop on the catwalk to lower casing down to catwalk checking its progress against the crane lifting the pin end.

Casing joint is lowered against pipe stop as shown by dotted line.

Bottom or pin end is slung then attached to the crane hook. Crane operator starts to lift before single joint elevator is attached. Casing joint jumps the pipe stop. Box end descends V-door unchecked driving the casing along the catwalk.

As casing moves away from crane boom the pin end rises and clears the end of the catwalk striking an upright stanchion 2.5m up.

Casing Joint  
10m long  
weight 900 kg



Pin end of casing struck  
upright stanchion



Side door elevators are used to lift up casing into derrick and then lower down as pin end is passed through the V-door to secure it against the pipe stop on the catwalk.

Single joint elevators are latched onto casing joint once it has been put through the V-door and secured against the pipe stop on the catwalk to lower casing down to catwalk checking its progress against the crane lifting the pin end.

Casing joint is lowered against pipe stop as shown by dotted line.

Bottom or pin end is slung then attached to the crane hook. Crane operator starts to lift before single joint elevator is attached. Casing joint jumps the pipe stop. Box end descends V-door unchecked driving the casing along the catwalk.

As casing moves away from crane boom the pin end rises and clears the end of the catwalk striking an upright stanchion 2.5m up.



Casing Joint  
10m long  
weight 900 kg

Pin end of casing struck  
upright stanchion

## 251: Gas Release Following Pressure Testing

Summary: A gas release occurred following nitrogen leak testing of a heat exchanger which had been isolated for inspection.

Incident consequences (potential or actual): *No details available.*

Cause of accident or incident: *No details available.*

Activity Location: Fixed Installation

Activity Type: Maintenance

Description: A hydrocarbon release occurred whilst depressurising a dry gas heat exchanger to atmosphere following a nitrogen leak test. The work was part of a programme of inspection, which required the removal and reinstatement of the exchanger's inlet and outlet pipework. One of the process inlet pipework joints failed its initial leak test and the joint was realigned. Following remedial work the joint was successfully leak tested. At some point between realigning the joint and completing the second leak test, the nitrogen became contaminated with hydrocarbons. On completion of the leak test the nitrogen was depressurised to atmosphere. A cloud of contaminated nitrogen travelled from the point of release and activated two fixed gas detectors at a distance of approximately 50 metres. At the start of the work, a pressure test had identified that the outboard side of a double plug isolation valve was passing. A vent arrangement to the flare system was installed, which bled off the hydrocarbon gas from the cavity between the two plugs within the valve and allowed the work to proceed. The exchanger was replaced, the pipework reinstated, and a leak test was performed. This test was unsuccessful, so the exchanger was depressurised, the process inlet spool was realigned

and then leak tested again, this time successfully. There was no indication of gas during these activities. The subsequent attempt to depressurise the exchanger was stopped when a mixture of gas and liquid was discharged. A portable gas meter was used to check the liquid on the deck. No hydrocarbons were detected. Depressurisation recommenced and a white cloud of vapour was released to atmosphere. This was considered normal. The vapour did not disperse and was blown by the wind under an export compressor skid. Two gas detectors in the export compressor inlet activated directly after the release of the vapour cloud.

Specific Equipment:	<i>No details available.</i>
Lessons Learnt:	<p>Using valves to isolate equipment for inspection and maintenance is part of the design and operating philosophy of the installation. The integrity of the isolation scheme is fundamental to this philosophy. However, it was found that the nitrogen had become contaminated because the double plug isolation valve had failed to provide a positive isolation between the pressurised process system and the heat exchanger. The inboard side of the plug had sealed effectively up until the inlet spool was realigned however, at some point after this activity, the inboard seal had allowed hydrocarbons to enter the exchanger. Leak test nitrogen was then introduced and was contaminated by the hydrocarbons that had entered the exchanger. The double plug isolation valve was manufactured by Serck Audco. These valves have a relatively poor track record for providing a positive isolation on the Installation. The exchanger was considered to be a limited volume test (known as a "bottle test") with depressurisation of the nitrogen to atmosphere. This was a judgement made by the personnel carrying out the test who did not anticipate that the nitrogen might have become contaminated with hydrocarbons since there had been no indication of hydrocarbons during the</p>

work to remove, reinstate or repair the pipework joints. This belief was reinforced by the fact that the initial unsuccessful leak test of the exchanger had concluded with a local depressurisation of the system with no indication of hydrocarbons being present. It is noted that the Health and Safety Executive in April 2002 issued a Safety Alert 3/2002 "The risks posed by exposure to inerting gases in the open air".

Task Description: *No details available.*

Recommendations:

Contact Details: Robert Hirst at TotalFinaElf Exploration UK PLC on 01224 297891

## 252: Safety At Home - Near Loss of Toes

Summary: Nice weather, comfortable temperatures, relaxing in the yard, BBQ, don't worry, be happy. Unfortunately practice shows that even in the garden we have to be alert for 'hidden dangers'

Incident consequences  
(potential or actual):

Cause of accident or incident:

Activity Location: \*Any Location Type

Activity Type: \*Any Activity Type

Description: Somebody was mowing his lawn and tripped over a piece of wood. When he fell backwards the mower ran over his foot. Usually wearing sneakers, tennis shoes or sandals, luckily this time he was wearing steel-toed safety shoes, which prevented the loss of his toes or even a major portion of his foot.

Specific Equipment:

Lessons Learnt: Lots of potentially harmful home equipment is so common that it is considered benign or virtually harmless, and even given to children to 'help mommy or daddy'. Most of our home-grade power equipment requires the same respect as the equipment and machines used on the job.

Task Description: *No details available.*

Recommendations: Protect yourself, also when using home-grade machinery. Wear the proper safety equipment such as shoes/boots, gloves, goggles, a dust mask, ear protection, fall protection or a helmet, whenever working with heavy or sharp tools, noisy tools, working on a ladder, grinding

stone walls, cutting large branches, etc.

Contact Details: *No details available.*



## 253: MULTIPLE FATALITIES - H<sub>2</sub>S RELEASED FROM MOLECULAR SIEVES AFTER CONTACT WITH WATER

Summary: Three contractor employees died at a natural gas processing plant as a result of inhalation of H<sub>2</sub>S released during the unloading of molecular sieves from a NGL drier. Two of the victims were trying to rescue the first worker. Please click on this link for a more detailed newsletter describing the process and incident - [MULTIPLE FATALITIES - H<sub>2</sub>S RELEASED FROM MOLECULAR SIEVES AFTER CONTACT WITH WATER](#)

Incident consequences (potential or actual): *No details available.*

Cause of accident or incident: *No details available.*

Activity Location: Onshore terminal

Activity Type: Maintenance

Description: The drier was prepared for dumping the sieves in a similar way that had been done many times over the previous 20 years. Appropriate safety precautions and equipment were provided for the entry of personnel into the drier in order to remove the top guard and mesh. Removal of the sieves was done by raking them from the drier onto a chute ending above a high-sided tipper truck. The truck had been wet with water and the dumped sieves had been wetted using a fire hose in order to reduce the risk from any pyrophoric material and to restrict dust in the windy conditions. After a while a mound of molecular sieves had formed at the back of the truck. A contract labourer decided to enter the truck to level the mound by shovelling the sieves to the front of the truck. Entry to the body of the truck was by a ladder behind the cab. After some 10 minutes a second

contractor also entered the body of the truck to help. Shortly afterwards he collapsed. The first contractor went to his assistance and was joined by a third contractor who jumped into the truck from the elevated platform on the drier. All three became unconscious and died. A fourth man who climbed the vehicle ladder to see what was happening also became unconscious but was pulled from the area by rescuers. Emergency response was delayed by unclear radio communications.

Specific Equipment: Molecular sieves from a NGL drier.

Lessons Learnt: Understanding of the Hazards and Effects Management Process (HEMP) needs to be improved, in particular the relationship between HEMP and the planning of activities through identification of incident scenarios and job safety analysis (task risk assessment). Incident scenarios and appropriate job safety analysis (task risk assessment) should be performed with the involvement of first line supervision. Method statements should be prepared which clearly define roles, responsibilities and the controls to be applied. Communication through tool box talks should be carried out. Manufacturer's recommended practices for safe handling of molecular sieves should be understood, communicated and applied. Safety induction should be tailor made for the target audience, be multilingual if necessary and preferably visual. Effectiveness needs to be checked and recorded and refresher training requirements defined. The awareness of the hazard of H<sub>2</sub>S should be enhanced for all staff and contractors. The effectiveness of such awareness training should be checked and refresher training requirements defined. The use of adequate PPE should be enforced, including the provision of warning notices. Emergency drills should address a range of scenarios and involve all staff who may have a role to play.

Task Description: *No details available.*

Recommendations: Incident scenarios and appropriate job safety analysis (task risk assessment) should be performed with the involvement of first line supervision. Method statements should be prepared which clearly define roles, responsibilities and the controls to be applied. Communication through tool box talks should be carried out. Manufacturer's recommended practices for safe handling of molecular sieves should be understood, communicated and applied. Safety induction should be tailor made for the target audience, be multilingual if necessary and preferably visual. Effectiveness needs to be checked and recorded and refresher training requirements defined. The awareness of the hazard of H<sub>2</sub>S should be enhanced for all staff and contractors. The effectiveness of such awareness training should be checked and refresher training requirements defined. The use of adequate PPE should be enforced, including the provision of warning notices. Emergency drills should address a range of scenarios and involve all staff who may have a role to play.

Contact Details: none available

## 254: VITON O-RINGS

Summary:	After approximately five months in operation the Brutus TLP in the Gulf of Mexico took a controlled shutdown on 12th February 2002, following four observed gas leaks (3 very minor and one of 8 mcf) in similar circumstances, all from valves in HP & IP service (600 psi or greater).
Incident consequences (potential or actual):	<i>No details available.</i>
Cause of accident or incident:	<i>No details available.</i>
Activity Location:	Fixed Installation
Activity Type:	Maintenance
Description:	During the period Brutus was in service the HP system had experienced 30 partial or complete shutdowns. The failure mechanism would appear from the investigation to date to be Explosive Decompression (ED) of Viton elastomer o-ring seals (see figure below). ED is a process in which gases that have been trapped within the given material are rapidly liberated and can cause seals to blister and fail. The Viton elastomer is commonly found in (but not limited to) ball valves, check valves, rotating equipment seals, and pressure safety valves.
Specific Equipment:	<i>No details available.</i>
Lessons Learnt:	An investigation team has subsequently carried out a large inspection program all over the facility, inspecting more than 100 components. Over 70% of the Viton elements inspected are, in the opinion of the team, defective or questionable; suffering some degree of ED. The investigation team has concerns in the following areas:- (i) Viton GF Elastomer (generically termed a high

fluorocarbon/FKM elastomer) has been used in o-ring seals that would appear to be below that required for the operating requirement; namely that it is not ED resistant at certain operating pressures. (ii) Viton A & B elastomer (generically termed a fluorocarbon/FKM elastomer) material is showing a deterioration of quality, compared to Viton A & B elastomer installed previously in our operations. Of the elastomer inspected above, approximately 80% of those inspected were Viton GF in HP, IP or LP service (and 29% of which exhibited a high or moderate degree of ED). The remaining 20% were Viton A & B in HP or IP service (of which 54% exhibited a high or moderate degree of ED). Viton GF The investigation team has concluded that Viton GF is not ED resistant at certain operating pressures. Please be additionally aware that the team's laboratory analysis to date demonstrates that some of the Viton GF used at Brutus exhibits hardness below the product specification range. Viton A & B Viton A and B is widely used on SEPCo TLPs built prior to Brutus. There is evidence that some of the Viton A used at Brutus was less ED resistant than samples taken from a previously constructed TLP, Ursa. The following SEM photomicrographs show, for the Brutus sample, the existence of large filler inclusions, which also appear to exhibit poor bonding to the elastomer matrix. The matrix itself is coarsely grained when compared to the used Ursa sample on the left. The used Brutus example exhibited ED, the used Ursa sample did not.

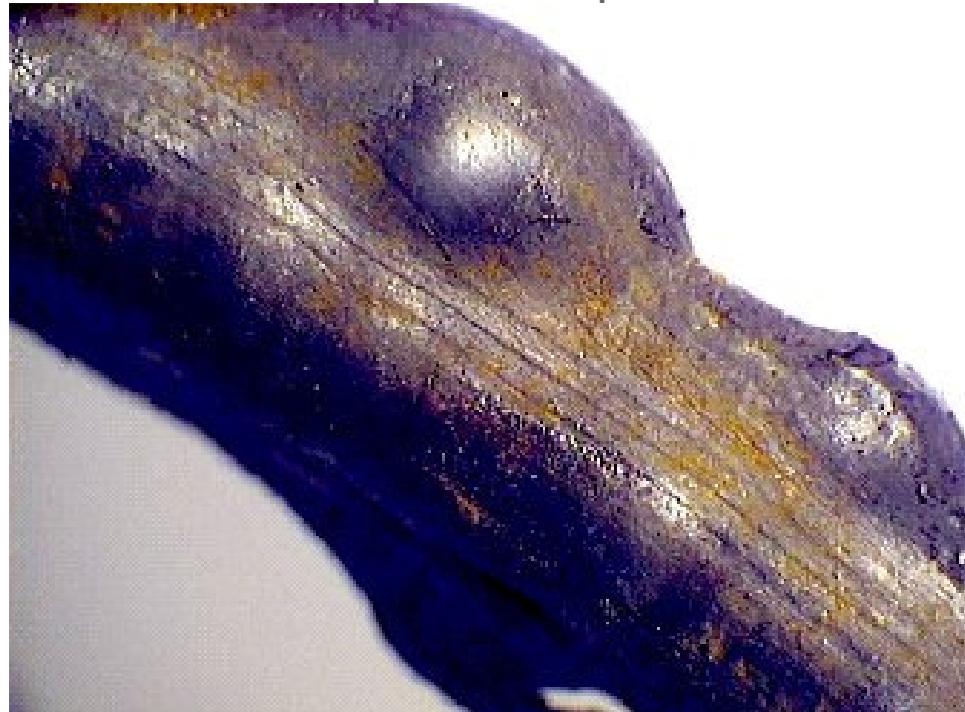
Task Description: *No details available.*

Recommendations: At present the investigation is still ongoing, however already it can be noted that one cannot be careful enough of the consequences of ED. Based on this experience it is recommended that you: Check if you have Viton GF and/or Viton A & B in your operation at present, and assure yourself that it is of the quality specified by the manufacturer and that it is suitable for your operational

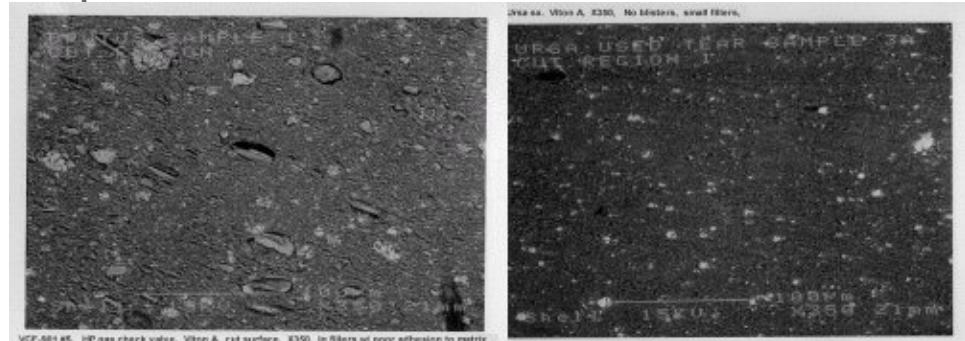
parameters. Check your existing material store inventories for Viton GF and/or A&B and assure yourself that it is of the quality specified by the manufacturer. Place adequate controls in place on the issue of 'o' ring seals from store inventories to ensure that that only ED resistant seals are used where ED is a possibility. Check for future projects that if there is a risk of ED, then explicitly specify ED resistant seals, and if necessary specify testing of the batches supplied for ED resistance.

Contact Details: Brutus Recovery Team, SEPCo, New Orleans John Bertucci on 1-504-728-7389.

### Failure Mechanism – Explosive Decompression



### Comparison of Brutus Viton-A & Ursula Viton A



## **255: Follow Up to SADIE Alert 283 Gas Release From Sight Glass**

Summary: Further information on company's follow-up to incident referred to in SADIE 283

Incident consequences (potential or actual): *No details available.*

Cause of accident or incident: *No details available.*

Activity Location: Fixed Installation

Activity Type: Production operations

Description: Refer to SADIE 283 for details of original incident.

Specific Equipment: *No details available.*

Lessons Learnt: Lessons Learnt: The company's follow up inspection programme to verify the integrity of velocity check valves on sight glass assemblies has revealed a significant percentage of non-conformances i.e. balls missing from the check valves. The inspection has also revealed that, dependent upon valve type, the ball can fall out unbeknown to the person fitting it or removing it for maintenance. This possibly explains the reason why some are missing. Discussion with members of the work force revealed that not everyone involved in the maintenance of these check valves was fully aware of the design and function.

Task Description: *No details available.*

Recommendations: The company has taken the following actions:- 1) Based on findings to date, company has increased inspection activity to cover all such assemblies on hydrocarbon systems. 2) Check valves on non conforming assemblies

have been fully closed thus isolating the sight glass. 3)By way of Risk Assessment establishing the need for each sight glass. Any that are not required are to be removed. 4)Where such sight glasses are needed ensuring that they are properly reinstated with the ball in place. 5)For the longer term explore improved alternative means of level indication devices for higher risk systems. 6)Raise the awareness of personnel in the design and function of the check valves.

Contact Details:      Dave Anderson, Talisman Energy (UK) Limited HSE&A Department

## 256: Offshore Installations - Infringements of 500M Safety Zone

Summary:	<p>The Maritime and Coastguard Agency is concerned to note an increase in the number of fishing vessels reported to be entering safety zones without permission. The factory fishing vessel MARBELLA is one of the latest casualties, having collided with a gas platform off the River Humber. 128 people had to be evacuated from the platform and there was extensive damage to the vessel. Owners, Skippers and watchkeepers of fishing'vessels are reminded of the following publications:- · Merchant Shipping Notice No. M 1290 - the importance of observing safety zones in order to protect mariners, personnel working in the oil and gas industry, and to reduce the risk of damage to the marine environment · Rule 5 of the International Regulations for Preventing Collisions at Sea requires that a PROPER LOOKOUT is to be maintained at all times · MGN 137 - Look-out, Especially During Periods of Darkness and Restricted Visibility · MGN 84 - Keeping a Safe Navigational Watch on Fishing Vessels · MGN 46 - Navigation in Fog - 3 Casualties and their Causes Skippers and others responsible for the navigation of fishing vessels must ensure that a PROPER LOOKOUT is kept at all times. If they fail to do so, they may endanger the lives of those on board their own and other vessels. They also risk being PROSECUTED or having their certificates CANCELLED or SUSPENDED.</p>
Incident consequences (potential or actual):	<p><i>No details available.</i></p>
Cause of accident or incident:	<p><i>No details available.</i></p>
Activity Location:	Any Location Type

Activity Type: Any Activity Type

Description: The factory fishing vessel MARBELLA collided with a gas platform off the River Humber. 128 people had to be evacuated from the platform and there was extensive damage to the vessel.

Specific Equipment: *No details available.*

Lessons Learnt: *No details available.*

Task Description: *No details available.*

Recommendations: Skippers and others responsible for the navigation of fishing vessels must ensure that a PROPER LOOKOUT is kept at all times.

Contact Details: None available

## 257: Fall from Ladder

Summary:	Whilst ascending a ladder to the roof of an enclosure to assess lifting requirements, the injured person slipped on the rungs when nearing the top and fell about ten feet.
Incident consequences (potential or actual):	<i>No details available.</i>
Cause of accident or incident:	<i>No details available.</i>
Activity Location:	Fixed Installation
Activity Type:	Construction, hook-up, commissioning
Description:	Three people were involved in removing a lifting frame using a wooden scaffolding ladder to gain access to an enclosure roof. As the ladder was required to be moved frequently a decision was made to "foot" the ladder and not to lash it. The ladder was positioned and one man ascended while a second man footed the ladder. Upon reaching the top the first man climbed onto the enclosure roof and clipped on the safety harness which he was wearing. The third person then ascended the ladder which again was footed. When he was nearing the top of the ladder, and before he could clip on the harness he was wearing, it is believed that his feet slipped on the rung of the ladder. The change in weight distribution caused the ladder to move sideways from the upright position. Although it was being footed the man at the bottom was unable to prevent the movement of the ladder. The ladder slipped and the injured person fell about ten feet suffering a fracture to his left foot.
Specific Equipment:	ladder

**Lessons Learnt:** The combination of slippery decks, ladder rung and footwear were contributory factors to the incident. The ladder used to gain access was not of sufficient length to gain safe access to the enclosure roof. Specifically it did not extend 1.1. metres above the roof as indicated in the Safety Practices Manual. This indicated a lapse in the risk assessment and planning of the job. It would have been prudent to secure the ladder by means of lashing as a risk mitigation measure given the slippery conditions of the deck. The working hours of personnel was also taken into account in this incident.

**Task Description:** *No details available.*

**Recommendations:** Lashing of ladders is preferable to footing ladders and should be done whenever possible. If Footing a ladder is required this should be included in the risk assessment. Whenever free standing ladders are used due account must be taken of the prevailing floor conditions that the ladder is standing on. Adequate planning of jobs must be carried out to ensure that the correct equipment i.e. in this case a ladder of suitable height, is used. Overtime and working hours of Construction personnel need to be closely monitored to ensure they do not become a factor in job safety.

**Contact Details:** Phill Thompson thopx0@bol.co.uk

## 258: Waste Disposal Unit (s)

Incident Date: *Date of incident not available.*

Summary: Observed Dishwash General Assistant with hand under guard of the waste disposal unit while it was in operation.

Incident consequences (potential or actual): *No details available.*

Cause of accident or incident: *No details available.*

Activity Location: Any Location Type

Activity Type: Catering / hotel services

Description: Observed Dishwash General Assistant with hand under guard of the waste disposal unit while it was in operation. Immediate intervention to stop this action. Design of the Waste Disposal has sloping surface for the waste. Waste has to be pushed down the slope with hand to avoid build up (running water feed will not always move the waste). Contact cannot be made with the moving parts of the waste disposal whilst carrying out this task. Plastic spatulas have been ordered to use as a tool for pushing down the waste.

Specific Equipment: *No details available.*

Lessons Learnt: Bad practice Ensure staff are fully trained to use this type of machine. Regular toolbox-talks informing staff of the dangers.

Task Description: *No details available.*

Recommendations: Staff must not under any circumstance place hands under or use hands to push food waste into this type of machine. If the water supply is not strong enough get an

engineer to turn up the pressure. Only use the recognised tool for pushing food waste in to machine. Discuss this incident at your next toolbox-talk and reinforce at your Safety Meeting

Contact Details: [john.fraser@ulk.co.uk](mailto:john.fraser@ulk.co.uk)

## 259: Air Logistics Safety

Summary: Air Logistics recently experienced an in flight loss of tail rotor authority on a Bell 206L-3.

Incident consequences (potential or actual): *No details available.*

Cause of accident or incident: *No details available.*

Activity Location: \*Any Location Type

Activity Type: Air transport

Description: All evidence appears to indicate that an object departed the baggage compartment, passenger compartment or other area and came into contact with the tail rotor. This impact caused the tail rotor driveshaft to shear resulting in the complete loss of tail rotor thrust. The pilot was able to execute an emergency landing in the water and both pilot and passenger were able to escape without serious injury.

Specific Equipment: *No details available.*

Lessons Learnt: Under Investigation

Task Description: *No details available.*

Recommendations: Until further investigation reveals how this event may have happened, we are urging all customers to pay careful attention to any items that may be loaded in an aircraft; especially when the aircraft is running and the pilot cannot supervise the loading and unloading. In addition, baggage and passenger doors must be checked to ensure they are adequately fastened and all cargo must be secured in such a manner as to prevent any shifting in flight. Prior to boarding, please ensure there

are no items that may have fallen out of the aircraft such as life vests, noise suppressors or other items. These may become hooked on the skids and may later release into the tail rotor during flight. Any person that places baggage or cargo in an aircraft must ensure that all items are secured by tie-downs, seat beats or nets. Federal Aviation Regulations require that all items placed in an aircraft be secured in such a manner as to prevent them from shifting in flight.

Contact Details: Gary Tucker, Director of Safety Amerada Hess

## 260: Lifting Accessories - LOLER

Summary:

Incident consequences (potential or actual): *No details available.*

Cause of accident or incident: *No details available.*

Activity Location: \*Any Location Type

Activity Type: Lifting, crane, rigging, deck operations

Description: The Upper section of a Vetco multi bowl well head, weighing some 2.5 tonnes, was being changed out. The Service Engineer made up the running tool to the well head and gave the go ahead to raise the upper section of the multi bowl to the rig floor. When the tool and bowl had been raised 20 feet the multi bowl dropped off the running tool and landed and jammed on the lower section of the well head.

Specific Equipment: *No details available.*

Lessons Learnt: During the investigations, it was made clear, by the HSE Lifting Equipment Inspector that the running tool (and similar equipment) was a 'Lifting Accessory' and subject to the Lifting Operations and Lifting Equipment Regulation (LOLER) (Reg. 9 (3)(a)(i)) requirements. In this instance, LOLER documentation was not available for the running tool. However, it was possible to demonstrate to HSE satisfaction that the equipment was properly maintained and fit for purpose.

Task Description: *No details available.*

Recommendations: Managers, should take action to ensure that where their operations involve any lifting operations, lifting equipment

and 'Accessories' are registered, inspected and certified at: a) Appropriate intervals, or b) Before use. Where option b is taken, equipment should be quarantined to prevent unauthorised use. Synergi Case 3591 details the learning and actions from this incident, personnel completing similar operations should familiarise themselves with the detail and findings of this case.

Contact Details: John C Butcher Amerada Hess Ltd Tel-01224 243347

## 261: Use of Multibowl Running Tools

Summary:	In a recent incident offshore UK North Sea, an ABB Vetco Gray Surface Wellhead Multibowl assembly was dropped from a considerable height when being lifted during work-over operations. No personnel were injured as result of this incident, but the potential for injury and property damage was considerable.
Incident consequences (potential or actual):	<i>No details available.</i>
Cause of accident or incident:	<i>No details available.</i>
Activity Location:	Fixed Installation
Activity Type:	Well services / intervention
Description:	Due to a combination of Human Error and the presence of a foreign body in the bore of the item being lifted, the Running Tool was incorrectly made up. Sufficient grip was exerted by the tool to allow the assembly to be lifted away from the wellhead however during the lifting operation this grip was lost and the Multibowl assembly dropped back down to wellhead level.
Specific Equipment:	<i>No details available.</i>
Lessons Learnt:	The tool was confirmed to be functionally sound and adequate for the intended operation. Review of the procedures highlighted some ambiguity in the method to visually confirm that the tool was correctly made-up. This was compounded by a revision that had been made to some but not all of the screws used to actuate the locking mechanism.
Task Description:	<i>No details available.</i>

Recommendations: The subject Running Tools are identified with Part Numbers A71641-1 and A71641-2. If either of these tools is to be used, correct positioning of the dogs in the wellhead must be confirmed prior to lifting operations. The "Tool Locked" condition corresponds to a 1 3/8" "Dogs fully Engaged" dimension on either tool. The "Tool Unlocked" condition corresponds to a 3 1/4" "Dogs Fully Retracted" dimension on either tool. If at any time the position of the dogs is unclear or there is any uncertainty that the tool is correctly made-up, then the tool should not be used for lifting operations. Contact ABB Vetco Gray Service Department for advice.

Contact Details: ABB Vetco Gray Service Department &

## 262: Life Boat Safety

Summary:	During maintenance it was discovered that 2 out of 3 TEMPSC winch brake release cables would not operate.
Incident consequences (potential or actual):	<i>No details available.</i>
Cause of accident or incident:	<i>No details available.</i>
Activity Location:	Drilling unit
Activity Type:	Maintenance
Description:	The release cables had been modified by addition of a weight to maintain tension on the cable. Due to confusion about the exact details of the maintenance schedule and a build up of corrosion product, the release cable would not pass through the weight as designed and so prevented the winch brake releasing.
Specific Equipment:	<i>No details available.</i>
Lessons Learnt:	<ul style="list-style-type: none"><li>• Checking components of a system does not remove the requirement to check that all components work together.</li><li>• Ensure that maintenance schedules are clear and unambiguous – and cover the requirements adequately.</li><li>• Pay particular attention to modifications from the original design – even if approved by the supplier.</li><li>• If possible modify the design to remove the potential hazard.</li></ul>
Task Description:	<i>No details available.</i>
Recommendations:	<ul style="list-style-type: none"><li>• TEMPSC maintenance schedule to be modified to separate the 'launch' component.</li><li>• Maintenance schedule to specify checks on tension weight freedom.</li><li>• Reposition release line to minimise/remove requirement for cable to pass through weight.</li><li>• Carry out full launch trials as felt</li></ul>

necessary.

Contact Details: Michael Forster Amerada Hess  
(michael.forster@hess.com)

## 263: Fatality following failure of auto inflating lifejackets to inflate

Summary: This note contains details of a marine safety alert about a recent accident when there was a fatality following failure of several auto inflating lifejackets to inflate.

Incident consequences (potential or actual): *No details available.*

Cause of accident or incident: *No details available.*

Activity Location: \*Any Location Type

Activity Type: \*Any Activity Type

Description: A Safety at Sea International article (July 2002) contains details of a UK MAIB safety alert about a recent marine accident, when there was a fatality following failure of several auto inflating lifejackets to inflate. The information below has been taken from the Safety at Sea International article or from the original MAIB Safety Bulletin (this is at <http://www.maib.dft.gov.uk/safetybulletin/2002/sb22002.htm>).

A fishing vessel sank in April 2002, having snagged her port net on a seabed obstruction. 5 crew on deck wearing auto inflating lifejackets tried to inflate them manually by pulling the release toggles. Only one inflated. Three of the crew managed to board the starboard liferaft but, as the fishing vessel capsized, the liferaft turned upside down. They all ended up in the water and tried to board the upturned raft. During this process one of them disappeared. The missing man was one of those whose lifejacket failed to inflate. He was never seen again. Two of the lifejackets used in this accident were recovered. They were found to be a few days overdue for service. Together with 14 others of similar type, five of which were unused, they were sent for inspection and testing. They were all fitted with CM Hammar release units. The examination revealed that the gas cylinders were either not connected to, or were not fully

tightened into their release units. The gas cylinders in the five unused lifejackets were not fully tightened into their release units. An inflatable lifejacket being worn by fishermen is subjected to heavy use. It has been discovered that when the fabric of a lifejacket rubs against the gas cylinder with constant use, it can cause the cylinder to unscrew from the release unit if it has not been fully tightened. Note that although this accident involved a CM Hammar release unit, MAIB believe that lifejackets with other types of release unit could suffer similar problems to those described above. The MAIB Safety Bulletin is for the attention of all mariners who wear inflatable lifejackets.

Specific Equipment: *No details available.*

Lessons Learnt: See recommendations.

Task Description: *No details available.*

Recommendations:

Contact Details: Richard Barwick (Marine Accident Investigation Branch) 02380 395524 [richard.barwick@dft.gsi.gov.uk](mailto:richard.barwick@dft.gsi.gov.uk) OR Hugh Smallman (HSE Offshore Division) 0151 951 3188 h

## 264: Drilling elevator pinch pointSC

Summary: Whilst using a set of 5-1/2" automatic drilling elevators, an incident occurred when a person's finger was lacerated.

Incident consequences (potential or actual): *No details available.*

Cause of accident or incident: *No details available.*

Activity Location: Fixed Installation

Activity Type: Drilling, workover

Description: An incident involving the use of a set of 5-1/2" automatic drilling elevators has occurred on board a semi submersible drilling rig owned and operated by Transocean. The operation at the time of the incident was to pick up a single space-out joint of 5-1/2" drill pipe from the Mousehole. Up until this point the rig operation had been running in the hole with stands of 3 joints. The incident occurred at the point where the automatic elevators were to be latched onto the joint of pipe in the Mousehole. The IP, along with another Floorman, was holding a handle (horn) of the elevator to guide it around the joint of pipe as the equipment which offered the elevator up to the pipe was unable to correctly position the elevator in relation to the mousehole. The operation was aborted when the latching mechanism engaged at the same time as the elevator swung back from the pipe. At this point the right handle of the elevator came into contact with the joint of drill pipe. This is the handle that the IP was holding at the time. As a consequence the IP's finger was caught between the elevator handle and the joint of pipe. The IP suffered a laceration to the right middle finger nail bed area, resulting in a RWI.

Specific Equipment:	<i>No details available.</i>
Lessons Learnt:	<p>Key Lessons: 1. Modifying equipment designs by introducing “bolt on” systems, can create additional hazards associated with the retention of the original design features. In this case a new pinch point was created but not recognised. 2. Operation of equipment outwith the manufacturer’s intended method may introduce new hazards which must be subject to thorough assessment before adoption. In this case the hazard was unrecognised.</p>
Task Description:	<i>No details available.</i>
Recommendations:	<p>1. Where manual intervention cannot be engineered out, investigate, with the manufacturer, redesign options, e.g. extending the link tilt and moving the mousehole to eliminate manual intervention or, if this is not possible, redesign of the elevator horns. 2. Review &amp; revise operating procedures to keep hands &amp; fingers out of danger. 3. Where similar arrangements for picking up singles from the Mousehole exist, review procedures and raise the awareness of crews to the potential of getting fingers caught between the horns of the elevator and the pipe.</p>

Contact Details: Robin Barr on 01224 835993&

## 265: Near Miss Reports Q3 - Cabin Bedding Catching Fire

Summary: Cabin bedding catching fire. Bunk lights being left switched on

Incident consequences  
(potential or  
actual):

Cause of accident or incident:

Activity Location: Any Location Type

Activity Type: Off-duty / recreation activities

Description: There have been 2 reports of bedding catching fire in cabins. On both occasions the cabin bunk light had been left on and due to contact with the bulb and through the intense heat, the bedding had caught fire. On one of the occasions a piece of clothing had been left near to the light and this had caught fire initially.

Specific Equipment:

Lessons Learnt: Please ensure bunk lights are checked as to their suitability. The bulbs should be covered with a light fitting and it should be positioned at such a height as to ensure pillows etc will not come into contact with them. All crew must be aware that lights should be turned off when not in use.

Task Description: *No details available.*

Recommendations: All light fittings be fitted with a cover which should be fitted in such a way as to ensure bedclothes and body parts etc will not come into contact with them. All crew must be aware that lights should be turned off when not in use.

Contact Details: Neill Murray&

## 266: Dropped Laptop

Summary:

Incident            *No details available.*

consequences  
(potential or  
actual):

Cause of accident    *No details available.*

or incident:

Activity Location:    Drilling unit

Activity Type:    Lifting, crane, rigging, deck operations

Description:    A potentially fatal accident occurred during planned maintenance work on an offshore crane. For the operation it was necessary to raise a load cell and laptop computer up to the crane cab. The load cell and laptop cases were tied on to the end of a rope using their handles, and a look-out was posted at the bottom of the crane and signalled the area clear to lift. When the items reached 50ft the knot came undone and the objects fell to the deck. Fortunately nobody was injured. The weights of the objects were as follows - load cell and laptop = 5kg each, 2 cases = 2 kg each, wires = 1kg making a total of 15kg.

Specific            *No details available.*  
Equipment:

Lessons Learnt:    Using rope to get equipment up to crane cabs appears to be a routine practice in the North Sea. Within AHL's operations it had previously never been perceived as a significant hazard. This operation is now considered to have manual handling and LOLER implications.

Task Description:    *No details available.*

Recommendations: Remove all improvised means/devices that are used for lifting materials up to crane carousel, machinery boards or

vertical ladders. Consideration provision of davit and pulley arrangement(s). Such arrangements will be platform and crane specific – and a review should be carried out of each crane set up. If a davit and pulley system is used a Manual Handling Assessment should also be carried out to determine appropriate maximum weights for pulling. Review risk assessments for crane maintenance activities to ensure all hazards associated with ancillary maintenance, inspection and breakdown repair activities are covered – and ensure that those which require materials to be manually lifted to heights are individually assessed.

Contact Details: Sarah Smith, Health & Safety Advisor Amerada Hess Tel- 01224 243645

## 267: Certified Electrical Equipment

Summary: Equipment with wiring fitted by manufacturer was found to have glands fitted incorrectly.

Incident consequences (potential or actual): *No details available.*

Cause of accident or incident: *No details available.*

Activity Location: \*Any Location Type

Activity Type: \*Any Activity Type

Description: For installation of a P.A. system, speakers were supplied by manufacturer complete with short cable tails, for ease of installation. During installation, anomalies were found with the glanding on several units, and there followed an ongoing inspection of all units. 30 out of 70 glands have been inspected and it was evident that all the glands checked have been incorrectly installed, be it the braid clamping ring inserted the wrong way round, inner insulation cut/split and in every case the cellophane wrap covering the inner insulation had been left on, threatening the integrity of the gas seal. Any one of these faults renders the gland outside the required installation standard. The manufacturer was Federal Signal Ltd. The gland details, Hawke type 501/453/univ-EExd IIC / EExe II

Specific Equipment: *No details available.*

Lessons Learnt: Manufacturing process does not always guarantee equipment integrity.

Task Description: *No details available.*

- Recommendations:
1. CEE equipment requires a detailed inspection as per IEC 79-17 on installation to capture any possible manufacturing faults.
  2. Any equipment from this manufacturer, with these types of glands fitted should be subject to a detailed inspection as per IEC 79-17

Contact Details:

Originator : William D MacKenzie 01224 836552  
Technical Authority : Steve Jackson

## 268: Fatality – Offshore Lifting Operation

Summary:	Two chemical pods were stored on top of each other and the upper pod was to be lifted by crane down to the pipe deck. During the operation the pod fell resulting in the fatal injury of a person
Incident consequences (potential or actual):	<i>No details available.</i>
Cause of accident or incident:	<i>No details available.</i>
Activity Location:	*Any Location Type
Activity Type:	Lifting, crane, rigging, deck operations
Description:	Two chemical pods were stored on top of each other and the upper pod was to be lifted by crane down to the pipe deck. During the operation the pod fell resulting in the fatal injury of a person. The incident is currently being investigated but this alert is raised on an early finding from the investigation team.
Specific Equipment:	<i>No details available.</i>
Lessons Learnt:	The retaining mechanism (see red circle) on chemical pods of the type shown appears to be insufficient to prevent sliding when a force is applied to an empty pod.
Task Description:	<i>No details available.</i>
Recommendations:	A strong recommendation has been made by the investigation team to the company involved, that any container of similar design is not stacked. The recommendation also applies to any similar guide/retaining pin design pending a better understanding of the accident.

Contact Details: Fraser Bell 01224 834461 bellfl@bp.com

**Chemical pod showing retaining mechanism**

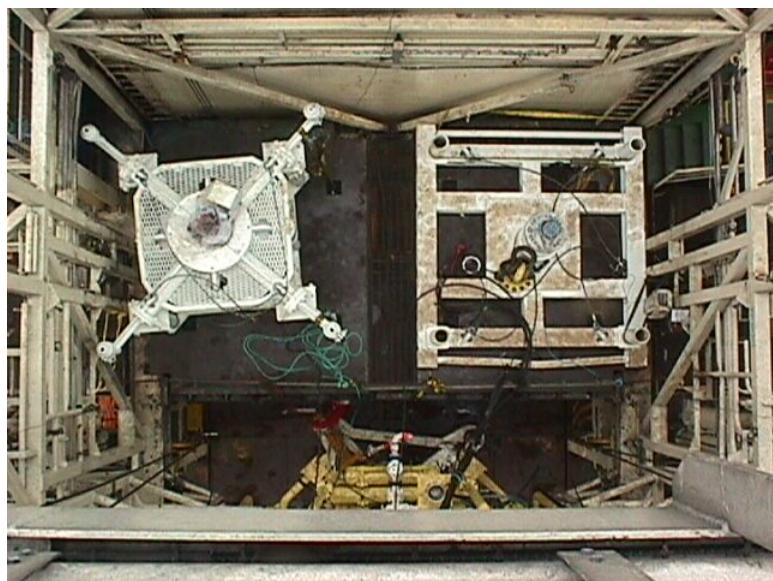


## 269: Fall from Mezz Deck During SIL Operation

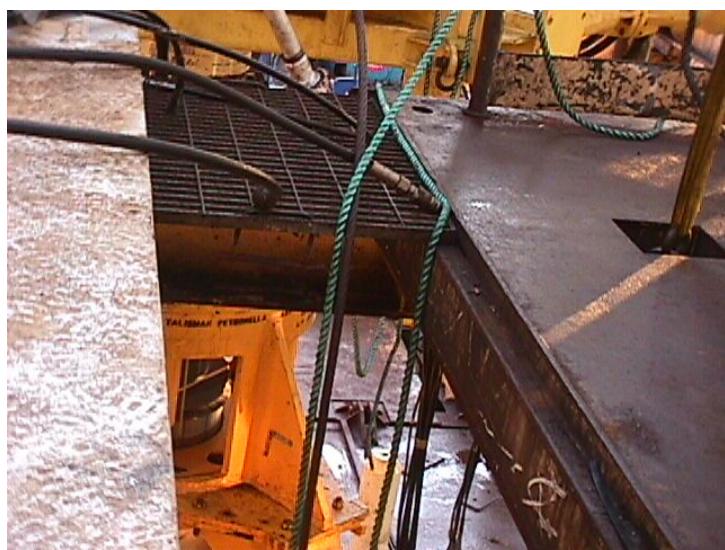
Summary:	To raise awareness to the hazards associated with working at height.
Incident consequences (potential or actual):	<i>No details available.</i>
Cause of accident or incident:	<i>No details available.</i>
Activity Location:	Specialist vessel eg diving, construction, survey
Activity Type:	Lifting, crane, rigging, deck operations
Description:	During the racking back operation of the SIL riser into the derrick, a hose bundle was being pulled onto the mezzanine deck level (at 4.5m) prior to lifting off riser to slot backward into racking position. As the hoses were being pulled, one of the operators stepped back and fell through an open section of the mezzanine deck. He landed on the main deck, was knocked unconscious, and sustained serious head and neck injuries..
Specific Equipment:	<i>No details available.</i>
Lessons Learnt:	To raise awareness to the hazards associated with working at heights.
Task Description:	<i>No details available.</i>
Recommendations:	All supervisors and operators must ensure a suitable Task Risk Assessment is in place and reviewed with communication of key points at Tool Box Talk. When working at heights over 10ft and above open areas, the appropriate PPE must be worn. IF IN DOUBT, ASK111
Contact Details:	Andrew McFarlane or Phil Bosworth amcfarlane@slb.com

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**Mezz deck from above**



**Mezz deck showing gap**



## 270: Safety Flash

Summary: RECENT LTI - ISSUES ARISING

Incident consequences  
(potential or  
actual):

Cause of accident or incident:

Activity Location: Specialist vessel eg diving, construction, survey

Activity Type: Marine activity, shuttle offloading

Description: A serious injury occurred on board an anchor handler recently, consisting of three pelvic fractures, when a seaman became trapped between two half-height containers. One of the half heights shifted and closed on the other, as the Injured Party (IP) was trying to hold the hook steady whilst the Boatswain unhooked the crane from the lifting bridle.

Specific Equipment:

Lessons Learnt: The accident has been investigated and, contrary to initial assumptions by the Press and others, the findings have not revealed any major contravention of procedure or irresponsible acts. A number of issues have combined to create the ideal environment for this type of incident and the following are those Marine issues, which have been teased out during the investigation process. There is still an acceptance of "Cherry Picking" within the fleet and although not a critical factor in this particular accident, helped to "set the scene" for it! Steps will be taken onshore to provide mechanisms that will address this situation, with regard to the cargo plan when loading in port. However, there must be a certain element of policing this issue offshore and that is where the vessels can

contribute. Masters must be quite clear that they are empowered to halt any operation they consider to be dangerous or that has an unacceptably high element of risk. Most of the conditions that combine to create this scenario can be avoided by pre-planning and communications and every effort will be made to ensure that this is addressed in an appropriate manner. The UKOOA/C of S Guidelines will also be reinforced in this area during the next revision, which is due this year. Key elements of the dangers of Cherry Picking are; a)Working at height to reach the lifting gear. b)Walking between cargo units that are not secured from sudden movement. c)Occasional lack of visibility of individuals to crane driver. Clearly, the above scenarios are not acceptable in terms of safety and must be avoided at every opportunity.

Task Description: *No details available.*

Recommendations: “Management of Change” of weather was a critical factor in this accident and conspired with other conditions to help create the accident. Whilst the vessel was aware that the weather was steadily deteriorating, no contingency planning was carried out to ensure that, when operations ceased, the vessel’s deck cargo was in a proper stow for the conditions likely to be experienced. In this particular case, one item of cargo had to be re-stowed on the vessel to allow the cargo to be properly secured for bad weather and it was during this operation that the accident occurred. The Adverse Weather Working Guidelines provide “trigger points” at which the Master is prompted to hold a discussion with the installation’s OIM on the actual and expected conditions, vessel motion, crane operability etc. This is an ideal point at which to plan ahead with the installation to ensure that the deck is secure should operations have to cease rapidly. Masters are encouraged to use this opportunity to do just that and alter the work plan if necessary to ensure that the deck is secure and maintained that way. Further information on this accident will be promulgated to all

when the final report becomes available. In the meantime please bear in mind that the vessel involved in this accident is a modern, well managed and responsibly manned unit, the last place you would think an accident like this could occur. But it did, because a number of events conspired together to create the environment where the accident could take place. This could so easily have been a fatality.....none of us want to see that!

Contact Details: Ali Dillon MSF Secretary Tel : 01224 211176/01779  
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## 271: Infringement of Golden Rules

Summary: A person was working on a flat roofed canopy (above 2 metres) without wearing fall protection.

Incident consequences (potential or actual): *No details available.*

Cause of accident or incident: *No details available.*

Activity Location: Onshore office, support base, heliport

Activity Type: Maintenance

Description: An on site joiner was observed working on a flat roofed canopy (above 2 metres) above an entrance to the Dyce Office, Aberdeen, without wearing fall protection. He was tying off a banner to a hook previously placed. He was in direct contravention of the Golden Rule relating to working at height. The work was stopped and following a STOP / ASA conversation with the workman, his supervisor and a BP representative it became clear that no formal risk assessment of the task had taken place, that no permit to work had been issued and that there was an awareness of the Golden Rules but that they were considered advisory and not mandatory.

Specific Equipment: *No details available.*

Lessons Learnt: The Safety Management System in the office should be reviewed and the following key areas require to be addressed – Clear and consistent common standards / Common risk assessment and work control processes / Formal audit and review processes

Task Description: *No details available.*

Recommendations: .1. Re communication of Golden Rules as mandatory and ensure that they are part of the induction process. 2. Review all routine tasks in the office and ensure compliance with the Golden Rules. 3. Ensure all works are controlled and risk assessed though a robust process. 4. Provide safety leadership / risk assessment / Permit to Work training for key staff. 5. Implement a Safety Management System for the site (Coach appointed).

Contact Details: Mike J Tucker, Dyce Office Sefty manger – 01224 - 832599

## 272: Unplanned Gas Release

Summary: During an operation to dispose of surplus Biozan Gas, gas was released causing a yellow shut down.

Incident consequences (potential or actual): *No details available.*

Cause of accident or incident: *No details available.*

Activity Location: Fixed Installation

Activity Type: Well services / intervention

Description: The operation was to dispose of surplus Biozan via A4 riser through the tree and into the process. Prior to this operation a pressure test on the system was carried out, but failed to complete due to a NRV on the line from the mud pumps being in the wrong way round, resulting in a decision to relieve trapped water pressure back to the mud tanks. It was during this operation that the gas detectors in the mud tank area went into alarm and caused a yellow shutdown and GA. The tree had been shut in, but residual gas left in the riser had bled back to the mudtanks and triggered the alarms.

Specific Equipment: *No details available.*

Lessons Learnt: 1. Need clear understanding on management of change.  
2. Process fluids should not be bled back to the mudpits

Task Description: *No details available.*

Recommendations: 1. Procedures to be reviewed to ensure all rigups via a pumping tee to a riser include:- Surface gauges on both sides of check valves Method of ensuring NRV's are fitted correctly Process fluids are not bled back to mud pits. 2. Clear roles and responsibilities should be developed for

combined operations between wellservice and drilling personnel. 3. Review and re-inforce management of change procedures.

Contact Details: Ian Noble Magnus HSE Adv. 01224 834094 &

## 273: Toxic Gases Produced While Perforating

Summary: Hazards associated with the gas products of Well Perforating Services

Incident consequences (potential or actual): *No details available.*

Cause of accident or incident: *No details available.*

Activity Location: Fixed Installation

Activity Type: Production operations

Description: When Perforating, toxic gases are released as a result of the combustion i.e.N2, H2O, CO, CO2, NH3. The first 3 account for most of the volume in approx 1/3 proportions. The water will normally be liquid at the usual well conditions. Gas produced in Litres/gm of Explosive is RDX/HMX=0.908 ; HNS=0.646 ; PYX=0.655 at Atmospheric pressure @15DegC.(Use P1V1T2=P2V2T1 to find volumes for your case.) The normal procedure for controlling these gases is that they should be circulated out under control after unsetting the packer. Make sure that the rig crew and Client are aware of the hazard through safety meeting/Tool box talk. Also ensure that you have covered this in your risk assessment. When on surface, precautions for handling trapped gas within the gun system will be adopted as per normal procedures. Refer to the Schlumberger Perforating Manual for further information and InTouch case ID: 3345147. Short term Occupational Exposure limits for CO (15min) is 200ppm (232mg/m3. Remember pure Nitrogen is an asphyxiant.

Specific Equipment: *No details available.*

Lessons Learnt: Toxic gases are released when perforating. Correct operational procedures are needed to minimize this hazard.

Task Description: *No details available.*

Recommendations: Remind the perforating community of the hazards associated with the gas products of Well Perforating Services

Contact Details: Gordon Ballantyne &

## 274: Crushed Finger

Summary: Crushed Finger During Routine Task

Incident *No details available.*  
consequences  
(potential or  
actual):

Cause of accident *No details available.*  
or incident:

Activity Location: Drilling unit

Activity Type: Production operations

Description: Walking out of the accommodation to the boat drill an engineer's finger was caught when the exit door from the accommodation closed on it. Luckily the finger tip was not lost however the nail had to be removed which then resulted in a very painful infection.

Specific  
Equipment: Doorways

Lessons Learnt: To raise awareness of the potential danger in routine tasks offshore.

Task Description: *No details available.*

Recommendations: All personnel to attend Schlumberger Injury Prevention Programme. Make sure to pay full attention to all the hazards involved in routine operations. This is especially pertinent during the winter months when heavy seas and strong winds prevail. Pay special attention when you have been working extended hours or are required to wake-up and do a boat drill. Responsibility - all personnel

Contact Details: James O'Connor&

## 275: Dangerous Wires On Laptop Computer Cable

Summary:

Incident            *No details available.*

consequences  
(potential or  
actual):

Cause of accident    *No details available.*

or incident:

Activity Location:    \*Any Location Type

Activity Type:    \*Any Activity Type

Description:    An internal Hess contractor received a laptop from his company IT department to take offshore. Whilst checking the laptop, leads etc, he found that the mains power lead was damaged and a 'repair' had been undertaken on the lead. The IT Department involved had covered over the exposed wiring with black insulating tape instead of replacing the whole lead. It was also discovered that the plug did not have an 'electrically tested' sticker on it.

Specific            *No details available.*  
Equipment:

Lessons Learnt:    *No details available.*

Task Description:    *No details available.*

Recommendations: All portable equipment going offshore must be checked thoroughly by the person despatching it. It must be in sound condition with no obvious hazards and have a safety inspection label affixed which indicates the current safety status of the equipment i.e. whether it has PASSED or FAILED the appropriate safety inspection/test. Typical Checks Prior to Despatching Look critically at the equipment and look for damage to the outside of the equipment and its power lead & plug (do not take the plug apart). Look for signs of:- (a) damage e.g. cuts, abrasion

to cable insulation (b) damage to the plug e.g. casing cracked or the pins are bent (c) non-standard joints including taped joints in the cable (d) the outer covering (sheath) of the power lead not being gripped where it enters the plug of the equipment (e) signs of overheating (burn marks or staining) On arrival offshore, portable electrical equipment must be further checked by a competent person and approved as fit for offshore use. Equipment users should report/remedy all faults immediately, and not try to work around them, cover them up or leave them for somebody else to deal with. Note: These requirements apply equally to portable electrical equipment used onshore.

Contact Details: Mervyn Barr, EH&S Manager Amerada Hess Tel-01224 243656

## 276: Failure of "NH" type Fuse Holder Assembly

Summary:	A rig electrician sustained flash burn injuries to his face, left arm and hand whilst inserting a fuse during an electrical de-isolation following mechanical work on a drilling module HVAC damper mechanism.
Incident consequences (potential or actual):	<i>No details available.</i>
Cause of accident or incident:	<i>No details available.</i>
Activity Location:	*Any Location Type
Activity Type:	*Any Activity Type
Description:	A rig electrician sustained flash burn injuries to his face, left arm and hand whilst inserting a fuse during an electrical de-isolation following mechanical work on a drilling module HVAC damper mechanism.  As the electrician was replacing the fuse an electrical short circuit occurred destroying the fuse-links and fuse-base (similar undamaged fuse-base and starter compartment shown below).
	An urgent risk assessment is underway to determine the way forward for similar installations. Concurrently we are investigating the adequacy of the present international standard which specifies fuse installations direct onto busbars (this is currently being undertaken with an independent body).
Specific Equipment:	<i>No details available.</i>
Lessons Learnt:	1. The design of the cubicle does not allow safe access for fuse removal/insertion.

2. Electricians had apparently expressed concerns about carrying out this isolation procedure but this was not communicated (or had not been communicated effectively) to platform management/RPE.

Task Description: *No details available.*

Recommendations:

1. In the interim, all LV electrical isolations on main power circuits (including for electrical work) shall be via padlocked isolation switches as per ESR without the removal of fuses. Where such isolation is impracticable (eg isolators not present, cubicle work, fuse-replacement) the RPE and the Electrical Technical Authority shall first be consulted.
2. Contact your Electrical Technical Authority for further advice and information.

#### **Example of Undamaged Fuse-base and Starter Compartment**



## 277: Thermal expansion of trapped fluids

Summary: Alert to the potential of the thermal expansion of trapped fluids creating a hazard during drill out of a stage cementer.

Incident consequences (potential or actual): *No details available.*

Cause of accident or incident: *No details available.*

Activity Location: Drilling unit

Activity Type: Well services / intervention

Description: Recent conditions on a North Sea Rig resulted in the uncontrolled vertical movement of the bottom hole assembly(BHA) and drillpipe out of a stage cementer. Trapped hydraulic pressure caused by the thermal expansion of fluids used on the first-stage displacement caused the vertical movement. The first-stage cement displacement fluid, trapped between the first stage cement shoe and second stage closing plug / cement, was subject to thermal expansion after completion of the cementing operation. When the second-stage plug / cement was being drilled out, pressure from the expanding displacement fluid overcame the shear bond between the cement, above the closing plug, and pipe wall. The resultant movement forced the plug and cement plug upward against the BHA. This upward force resulted in the displacement of the BHA, drillpipe and top drive to the point of buckling and mechanical failure. The upward movement was approximately 20 metres until the pressure had been sufficiently released and the movement stopped. although there were no injuries associated with this incident the potential for harm was high.

Specific Equipment:	<i>No details available.</i>
Lessons Learnt:	To reduce the risk of pressure build up from the thermal expansion of first-stage displacement fluids during two-stage cement operations: 1. Do not shut the head after confirming that the stage tool is closed. Allow the expanding fluid to bleed to the pit and prevent pressure build up from thermal expansion below the stage tool. 2. Extend the time for conditioning or circulating the second stage to allow the first stage displacement fluid to recover bottom hole static temperature (BHST)
Task Description:	<i>No details available.</i>
Recommendations:	1. Limit the amount of time between the completion of the second stage cement job and drilling operations. Increasing the time until drill-out can create a greater possibility for thermal expansion in the well bore. 2. If the time lapse between cementing and drill-out is known, perform calculations to estimate possible fluid expansion and subsequent pressure build up that could occur from thermal expansion. With this estimation compare the possible upward force within the casing ID to the available BHA weight. If necessary adjust the BHA and, or fluid weight if possible. Only an increase in the mud weight can be used to offset the pressure created from thermal expansion. 3. It is important to release the closing plug and displace with water after confirming that contingency is in place to identify and manage any spacer or cement returned to the surface. If there is any doubt RIH and wash off closing plug. 4. The principal safeguard is to avoid placing any cement on top of the plug
Contact Details:	N. Smith HES HSE Department 776132

## 278: Steam Boilers - Potential For Burns From Hot Surfaces

Summary:	Steam operator burned his hand while filling up a water tank on a boiler.
Incident consequences (potential or actual):	<i>No details available.</i>
Cause of accident or incident:	<i>No details available.</i>
Activity Location:	Drilling unit
Activity Type:	Drilling, workover
Description:	During a well test on the Global Santa Fe 140 a steam operator burned his hand while filling up a water tank on a boiler. The incident highlighted the potential for serious burns while using this equipment. Surveys were carried out of the three contractors supplying steam generators and steam operatives to the well test contractors. These surveys identified common areas of concern involving exposed hot surfaces and lack of signage on equipment supplied. The following actions have been agreed in consultation with the providers of steam generation equipment. 1. Ensure gloves and other identified PPE is being worn during work near hot surfaces. 2. Improve insulation or guarding on exposed surfaces of boiler assembly. 3. Appropriate warning signs to be added on prominent positions both on the doors of the container and on the boiler body.
Specific Equipment:	<i>No details available.</i>
Lessons Learnt:	1. Well test Supervisors to carry out Personnel and Equipment Risk Assessments to ensure the competency of the crew and the suitability of steam generating equipment in line with Quality Plan. 2. Well test

Supervisors to ensure that the Permit to Work (PTW) limits access to only those operating the steam generator.  
3. Suppliers of the equipment to ensure that agreed improvements are carried out in line with survey findings.

Task Description: *No details available.*

Recommendations: To raise awareness of the potential for burns when operating steam generators.

Contact Details: Derek Gibb Field Service Manager Tel: (01224) 406000

## **279: HOT SERVERY GLASS SNEEZE/SPLASH GUARD SHATTERED.**

Summary: Glass Sneeze/Splash guard shatters over hot counter during food service

Incident consequences (potential or actual): *No details available.*

Cause of accident or incident: *No details available.*

Activity Location: Any Location Type

Activity Type: Catering / hotel services

Description: During the lunch meal service, customer caught the above glass guard with the rim of his empty meal plate, causing the glass to shatter. Glass shattered for approx 6' forward and behind the servery unit contaminating food stocks in both galley and dining area Make description of unit MOFFAT TEMPERED GLASS BY SOVIS

Specific Equipment: Servery

Lessons Learnt: Customers and Staff to be more aware. Have contacted the suppliers and this is not a regular occurrence

Task Description: *No details available.*

Recommendations: Discuss this incident at your next toolbox-talk and at your next Safety Meeting The Company have had 2 similar instances where the glass has shattered it is recommended that over all sneeze/splash guards in units that clear plastic sticky film is placed direct onto the glass. Then for whatever reason if the glass shatters fragment of glass will not disperse over a wide area.

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## 280: North Sea Production Platform - Gas Release

Summary:	During Scheduled production platform shutdown, there was a gas release from a flange connected to gas injection header.
Incident consequences (potential or actual):	<i>No details available.</i>
Cause of accident or incident:	<i>No details available.</i>
Activity Location:	Fixed Installation
Activity Type:	Maintenance
Description:	On 11 August 2002, during a platform scheduled shutdown, there was a gas release from a valve flange connected to the gas injection header in the Upper Production Module. Personnel were removing flange bolts in preparation to remove two manual isolation valves scheduled for changeout during the shutdown. When the release occurred, the gas detection and water deluge systems activated as designed. The General Platform Alarm (GPA) sounded and all personnel assembled at muster stations. The gas dispersed completely via natural ventilation within about 15 minutes. The four personnel involved in the task were injured by flying debris. There was no significant equipment damage and the released gas was not ignited. One other person was injured within a vessel in Module 2 as he exited in response to the GPA. All were treated initially by the Platform Medic, then transferred to hospital on the Shetland Islands. All injuries were confirmed as non life-threatening. Three of the injured persons were released from hospital the same day and the two others after overnight observation.
Specific	<i>No details available.</i>

Equipment:

Lessons Learnt: Several factors were identified which in combination caused the release: Pipework downstream of HV-1802 was pressurised even though the header isolation valves had been closed for a long period. The boundary isolation procedure prepared and used for the shutdown included a nitrogen purge sequence to remove residual hydrocarbons, but did not fully take account of possible sites of trapped pressure in and around these valves; \*The permit to work checks did not detect the residual pressure in the deadleg pipework \*Because the flange bolts were seized in place, the 'cut-and-fracture' removal method was used. This is a standard practice, but requires certainty there is no residual pressure; \*The valves to be removed, and their adjacent 2" by-pass valves, were all in the closed position.

Task Description: *No details available.*

Recommendations: 1.Compile and issue a shutdown specific isolation protocol, based on review of practices elsewhere in the company and in other worldwide Affiliates. The document should cover vent/isolation tagging standards and documentation required for large-scale shutdowns; 2.Clarify and modify as needed the vent checks, auditing and 'closeout' processes used for Mechanical Isolation Certificates (MIC'sB). Update platform induction process and Permit training to cover all improvements identified; 3.Ensure vent/purge and recommissioning/leak-testing procedures include consideration of blinded pipework section 4.Ensure company operations practices consider risks of trapped pressure in valves to be removed for maintenance; 5.Reiterate in Platform Safety Meetings: \*Need for accurate task description on Permits; \*Stop + reassess if task changes; \*How gas can be trapped in valve cavities; \*Personal responsibilities within the Permit process; \*Publish key learnings as appropriate.

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## 281: Grit Blasting Incident

Summary:	Details pertaining to an injury sustained while carrying out wet blasting operations on a 2nd stage separator.
Incident consequences (potential or actual):	<i>No details available.</i>
Cause of accident or incident:	<i>No details available.</i>
Activity Location:	Floating production/storage unit
Activity Type:	Maintenance
Description:	<p>Employee was involved in carrying out wet blasting operations on a 2nd stage separator vessel offshore. The man had been for a tea break and on returning to the work site, he was in the process of moving the blast hose and deadman line, when the blast nozzle unexpectedly activated. The blast hose whipped up and the man was struck by the nozzle and wet grit from the blast process. The force of the blow knocked the man's visor and helmet off and he sustained lacerations and bruising to his eyelid and face. Prior to the work going ahead, a Hazid meeting was held with the client and from that a work pack was developed in conjunction with the client. Experienced personnel were selected to execute the work and despite the fact that all were familiar with wet blasting operations, all were given refresher training by the equipment manufacturer. All personnel attended a pre-mobilisation meeting on the day of their departure to talk through the work pack and to address any last minute questions. Despite these measures, the incident happened.</p>
Specific Equipment:	<i>No details available.</i>

**Lessons Learnt:** Following a similar incident earlier this year, and in direct response to the findings and lateral learnings from it, a new style of deadman handle arrangement was specified and mobilised. This had the deadman hose connected to the blast hose with tie-wraps. At some stage in the operation, the deadman handle and line had been stripped back from the blast hose and was being activated separately. It is thought that when the injured party moved the hose and deadman line, the deadman handle became caught on either some debris or a scaffold board, resulting in an unplanned activation of the system. Housekeeping at the worksite was considered inadequate, with debris existing from a previous operation. The workpack and permit to work had specified additional PPE to be worn during the operation, namely a fully air fed blast helmet. At the time of the accident, only a safety helmet and visor arrangement were being utilised. There were no pre-shift equipment checks recorded. Additional safety features had been installed as part of the equipment assembly in line with the previously mentioned high potential incident. These safety devices had been altered to 'make the job easier'.

**Task Description:** *No details available.*

**Recommendations:** Adherence with work pack instructions is mandatory. Project management and supervision must ensure that the work pack is communicated to all personnel to ensure that the hazards and associated risks of any operation are communicated and adequately controlled. Reinforcement of the message that if there is an identified change to the operation, the job should be stopped and reassessed. The principles of stopping the job has to be understood by all personnel and backed up by management commitment and support. Documented equipment and site inspections should be completed by the site supervisor for every work site on every shift. Any defects recorded and rectified accordingly.

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## 282: CCTV Camera

Summary:	The following occurred on an operating units. A CCTV camera fell from the Port crane it was installed on to the main deck below. The 3 (6mm) securing studs had sheared. The weight of the camera and motor were too much for the cables, which parted, allowing the whole camera unit to drop to the main deck.
Incident consequences (potential or actual):	<i>No details available.</i>
Cause of accident or incident:	<i>No details available.</i>
Activity Location:	Floating production/storage unit
Activity Type:	Maintenance
Description:	A CCTV camera fell from the Port crane it was installed on to the main deck below. The 3 (6mm) securing studs had sheared. The weight of the camera and motor were too much for the cables, which parted, allowing the whole camera unit to drop to the main deck.
Specific Equipment:	<i>No details available.</i>
Lessons Learnt:	It was determined that the PMR for the CCTV is not concise enough for this problem to be alleviated. The maintenance section in the manual from which the PMR is generated, does not give enough information. Due to the environmental conditions and vibrations in the area, a better inspection and maintenance system could have prevented the incident.
Task Description:	<i>No details available.</i>
Recommendations:	Recommended action: It is recommended that the following item shall be discussed by each operating unit

and action taken where necessary. 1. Inspect all CCTV cameras and other similar fixtures such as light fittings to ensure integrity of the base fastenings. 2. Order and renew the 3 bolts that secure the CCTV camera to the frame, using a thread lock compound. 3. Fit suitable lanyards that should not interfere with the movement of the camera but stop the camera from falling a great distance. 4. Revise the planned maintenance structure to ensure that the fixing arrangement is checked more thoroughly and that bolts are changed out at yearly intervals.

Contact Details: [nigel.taylor@maerskcon.co.uk](mailto:nigel.taylor@maerskcon.co.uk)

## 283: FRC Release Hooks

Summary:	A load test of new hang-off pad eyes for the new FRC was being initiated. This required the FRC to be moved from the stowed position to the helideck to make room for the test weight. The FRC was being moved using a long sling from the starboard crane to the crane. The FRC was being lowered to pass the weight over to the crane. While lowering the FRC, the automatic release hook released under full load (please see enclosure). The hook was in the locked position and had not been pushed to its 'Auto Release' position.
Incident consequences (potential or actual):	<i>No details available.</i>
Cause of accident or incident:	<i>No details available.</i>
Activity Location:	Drilling unit
Activity Type:	Inspection/testing
Description:	A load test of new hang-off pad eyes for the new FRC was being initiated. This required the FRC to be moved from the stowed position to the helideck to make room for the test weight. The FRC was being moved using a long sling from the starboard crane to the crane. The FRC was being lowered to pass the weight over to the crane. While lowering the FRC, the automatic release hook released under full load (please see enclosure). The hook was in the locked position and had not been pushed to its 'Auto Release' position.
Specific Equipment:	<i>No details available.</i>
Lessons Learnt:	It was determined that when lowering the FRC, the winch wire (being a standard 6 x 36 WA/SE IWRC wire) will

have a natural spin when running over the sheaves of the FRC's davit. As a tag line was used to prevent the FRC from swinging and spinning, this natural turn would have built up torque in the wire and hook assembly. At some point, the torque would have been big enough to cause the oblong link to twist out of the release hook and thus causing the unintentional release. While a maximum size of shackle of 27 mm is stated by the manufacturer, there is no minimum size stated. The manufacturer has been contacted to supply information for minimum diameter of suspension ring/shackle and to consider re-design of the latch as it should not be possible to twist a suspension ring with a SWL 400 kg greater than the hook out of the latch. The response from the manufacturer will be forwarded in a subsequent Safety Flash.

Task Description: *No details available.*

Recommendations: 1. Inspect all automatic release hooks manufactured by NED-DECK MARINE BV for liferafts and Rescue boats. 2. Install swivel between winch wire and release hook. 3. Change out standard 6 strand wire with non-rotating wire.

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## 284: FORT VALE 80mm relief valve

Summary: A PSV was removed for overhaul and attempts were made to strip the valve down in the mechanical workshop, but the technicians were not aware of the full energy potential of the spring compressed within the valve body. This resulted in the breakage of a light fitting.

Incident consequences (potential or actual): *No details available.*

Cause of accident or incident: *No details available.*

Activity Location: \*Any Location Type

Activity Type: \*Any Activity Type

Description: A PSV was removed for overhaul and attempts were made to strip the valve down in the mechanical workshop. Technicians were not fully aware of the full energy potential of the spring compressed within the valve body and adjustment cap. Specialised tools were not available on site to dismantle the valve adjustment cap safely. This was considered critical to the overhaul of this type of valve. On investigation it was found that a decision was made by the technicians to stop the job and go no further but unfortunately the valve was accidentally dropped to the floor and the mechanical shock enabled the adjustment cap to depart from the valve body and release the valve spring energy. This resulted in a light fitting being damaged in the mechanical workshop and also identified that this incident could have caused serious injury. The adjustment threads on the valve body and cap were found to be in good condition but when tested without the spring fitted and only two threads engaged it was considered to be easy for the cap to jump the pitch of the threads if forced.

Specific Equipment:	<i>No details available.</i>
Lessons Learnt:	The investigation found no warning of spring tension on the adjustment cap and this would have assisted the technician to take caution before attempting to remove it. No drawings or procedures were available to strip this particular type of valve down and the Tyco PSV technician had not seen this type of valve before. Specialised tools were not available on site to dismantle the valve adjustment cap safely. From this investigation it was found that a decision was made by the technicians to stop the job and go no further.
Task Description:	<i>No details available.</i>
Recommendations:	1. Where this valve is in use, manufacturer's tools and written procedures for assembly and disassembly must be available and adhered to. 2. Valves are labelled to alert personnel of the danger of the highly compressed springs inside the valve cap.
Contact Details:	Dave Hanlon HSEC Forties Charlie Brian Tadeo, HSE Advisor BP Mid North Sea 01224 832537

## 285: Lifting Chemical Transportation Tanks

Summary: During offloading operations from a supply vessel onto an installation the sling arrangement became caught against a fill pipe and sheared this off creating a dangerous dropped object and lifting situation

Incident consequences (potential or actual): *No details available.*

Cause of accident or incident: *No details available.*

Activity Location: Support vessel eg Supply, Standby

Activity Type: Lifting, crane, rigging, deck operations

Description: A recent cementing operation involved the offload of a liquid additive transport tank containing silicate liquid from the stern of the supply vessel up to the Britannia Installation. At the time of the operation, 1700 hours, it was dark and the supply vessel was holding position in moderate weather. The deck crew member on the supply vessel connected the installation crane hook onto the lifting ring for the four-legged sling arrangement connected to the corners of the tank's lifting frame. One of the slings had sagged down between the outer framework and the tank side. As the weight came onto the slings as the crane operator picked up on the load the sagged sling tightened against the two inch fill line which runs from the top of the tank over the end of the tank. The fill line was subsequently sheared off the tank and fell down to the deck of the supply vessel. As the slings then took up equal load and the load became balanced the lift was safely completed. The potential for a dropped object creating a serious injury to the vessel deck crew or the installation personnel had, had it become detached at a later stage of the lift, cannot be over-emphasised. The

snagged line created an imbalance in the load distribution before the fill line sheared and this situation could have escalated to a serious lifting failure.

Specific Equipment: *No details available.*

Lessons Learnt: This incident clearly illustrates the critical importance of checking sling arrangements are clear of any potential snag points prior to a lift commencing. Tank design has to be modified to prevent slings sagging between the framework and tank.

Task Description: *No details available.*

Recommendations: To prevent re-occurrence of a similar incident the Cementing PSL is progressing two principal actions. 1. On completion of tank survey the appropriate tank frames are being re-engineered to introduce additional topside bracing which will prevent the possibility of sling sag between the lifting framework and tank. Kennedy grating was rejected as an option so as not to promote general access to topsides of the tank. 2. All tank fittings are to be secured with whip-checks or chains to ensure that there are no loose objects with the potential to be displaced during lifting operations.

Contact Details: Lorne Craigie Service Co-ordinator Cementing Steve Gowen FSQC Cementing Tel 795000

## 286: Gross Overload Protection System (GOPS)

Summary: Gross Overload Protection System (GOPS) activated on Platform crane (Stothert & Pitt OS150).

Incident consequences (potential or actual): *No details available.*

Cause of accident or incident: *No details available.*

Activity Location: \*Any Location Type

Activity Type: Lifting, crane, rigging, deck operations

Description: Gross Overload Protection System (GOPS) activated on Platform Crane (Stothert & Pitt OS150) Due to a fitting failing (failure mode yet to be established but most likely corrosion attacking carbon steel fitting) on the Nitrogen/ Hydraulic system on the GOPS on the Platform East Crane, the whip- line of the crane started to pay out under the weight of the wire and the headache ball. The release of pressure from the Nitrogen/ Hydraulic system as a result of this fitting failure initiated the GOPS as if a gross overload had been encountered Although in this particular event, there were neither injuries nor material damage it is clear given slightly different circumstances, that either could have resulted.

Specific Equipment: *No details available.*

Lessons Learnt: *No details available.*

Task Description: *No details available.*

Recommendations: Similar GOPS on cranes should therefore be checked for corroded fittings and remedial actions implemented as soon as possible

Contact Details: Norrie Turnbull, OIM Scott Platform AHL Tel-01224  
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## 287: Dropped Object (Valve Handle)

Summary:	While moving a surge tank from the horizontal to the vertical position a valve handle became detached and fell to the deck.
Incident consequences (potential or actual):	<i>No details available.</i>
Cause of accident or incident:	<i>No details available.</i>
Activity Location:	*Any Location Type
Activity Type:	*Any Activity Type
Description:	While moving a surge tank from the horizontal to the vertical position using two cranes, a valve handle became detached and fell to the deck. The handle, from a 4" ball valve, is 53mm long and weighs about 1.5kg and is only attached to the spindle by a "pinch screw". The tank had been inspected, for loose items, at each key stage of its journey from the Great Yarmouth supply base to the rig. It was again inspected, including a hand search, prior to the operation to bring it to the vertical position. From the investigation it would seem likely that the handle became detached during the final operation to bring the vessel into the upright position. The vessel was transported with valve handles attached.
Specific Equipment:	<i>No details available.</i>
Lessons Learnt:	When looking for loose items we should also be looking for items which have the potential to become dropped object, such as valve handles, loose hammer lock unions etc. We should review equipment being transported to see if there are any engineering solutions to ensure items do not become dropped objects, thus taking away

reliance on systems and individuals. This could have been a very serious incident involving a member of the public or a road traffic accident. Fortunately it happened in a controlled workplace where other measures are in place to prevent escalation but we cannot rely on that to safeguard our workers.

Task Description: *No details available.*

Recommendations: I) Research possible engineering solutions to prevent recurrence, without compromising design. II) Ensure personnel, inspecting equipment for transportation, understand the need to look for things which have the potential to become dropped objects. III) Develop a policy with regard to the use of valves on mobile equipment, to ensure this is not repeated. IV) Review maintenance schedules for all equipment with valves attached

Contact Details: [kclarke@precisiondrilling.com](mailto:kclarke@precisiondrilling.com)

## 288: Blow back on burning torch

Summary: Blow back on burning torch which resulted in the full length of the oxygen hose being shredded right back to the flame arrestor on the bottle.

Incident consequences (potential or actual): *No details available.*

Cause of accident or incident: *No details available.*

Activity Location: Fixed Installation

Activity Type: Maintenance

Description: A blowback occurred on a burning torch resulting in the shredding of the oxygen hose right back to the flame arrestor on the cylinder. This resulted in a release of acetylene into the fabrication shop, which brought into alarm 3 gas heads. No one was injured. Investigation of the hoses revealed the non return valves (NRV's) were not in place on either the oxygen or acetylene hoses and this was a major contributing factor to the severity and resulting blow back and rupturing of the oxygen hose. Manufacture's data shows whilst in-line check valves (NRV's) do not guarantee that a blow back will not occur it reduces the risk and severity of it occurring by over 90%. The model of the burning torch that was fitted to the hoses at the time of the incident had been in service for less than a month (BiG NM 18/90). Mixing of the gas on this type of torch usually takes place at the nozzle that is meant to reduce blow back occurring. Torches previously supplied (Victor) had internal NRV's fitted. None of the persons interviewed knew if internal NRV's were fitted to the new torches but assumed they had been but were not 100% sure. After checking with the manufacture it was confirmed that the torch in question does not have

internal NRV's fitted. Apparently none of the manufacturers supply torches with NRV's fitted. The fortnightly maintenance equipment check sheet, which requires that the hoses are disconnected from the torch and that both hoses are back pressurised to check operation and integrity of the NRV's, was not applied.

Specific Equipment:

*No details available.*

Lessons Learnt: None of the risk assessments carried out on this task or equipment identified the necessity to check that NRV's were fitted. Written procedures were inadequate Checks of the equipment were not carried out properly Audit procedure failed to uncover the above

Task Description: *No details available.*

Recommendations: Update procedures for burning and welding Presentation to workforce Material control and specification of hoses updated Immediate inspection of all hose in use and stored HSE guidance notes for each installation Determine reasons for failing to follow procedures Review primary function monitoring Update generic risk assessments

Contact Details: Tim King - AMEC.

## 289: Actuator Valve Spindle Movement

Summary: During a routine change out of an actuator on a gate valve, the stem rose rapidly and struck the helmet peak of the technician working on top of the valve. No injuries to personnel resulted, although it could easily have been a fatality.

Incident consequences (potential or actual): *No details available.*

Cause of accident or incident: *No details available.*

Activity Location: \*Any Location Type

Activity Type: \*Any Activity Type

Description: During a routine change out of an actuator on a gate valve, the stem rose rapidly and struck the helmet peak of the technician working on top of the valve. No injuries to personnel resulted, although it could easily have been a fatality. The valve was an 18" slab gate valve on a pig receiver kicker line, with 44 bar line pressure. The task was to replace the failed top mounted electric actuator and the decision taken was to carry out the work with the gate in the closed position. A risk assessment was carried out and the potential movement of the gate was not identified. Nor was a method statement considered necessary as this type of task had been carried out many times before. The risk assessment concentrated on the tasks associated with working on the actuator and failed to appreciate the effect of the line pressure on the movement of the gate. A similar maintenance operation had been carried out many times before without incident and the view of all those involved in the task was that the gate could not move. This incident is very similar to an incident in October 2001 when the gearbox was thrown

4.5 metres after the mating flange had been released. In removing the actuator, the thrust bush was also removed (in this case being part of the actuator assembly). As there was no differential line pressure over the gate, the restraining force from the seat rings and gland packing was significantly less than the unbalanced force on the gate and stem. Thus after a short period the stem was pushed up with considerable force. The technician was leaning over the valve top works cleaning the mating flange face and the stem skimmed his face knocking off his helmet.

Specific Equipment:

*No details available.*

Lessons Learnt:

- Routine activities contain risks and the risk assessment must consider the full envelope of the task. An actuated valve must be considered as an assembly and the component parts not treated in isolation.
- Wherever there is an energy source, a method statement must be prepared noting the isolation or mitigation of the potential for movement or injury.
- Presence of the manufacturer's representative does not in itself guarantee a safe method of work, the right questions still need to be asked.
- Before commencing maintenance on equipment, manufacturers manuals and information must be reviewed. Please communicate the content of this briefing to all personnel within your areas of responsibility. Please ensure that the "lessons learnt" are discussed and, where appropriate actioned at all sites.

Task Description:

*No details available.*

Recommendations:

- Awareness of the hazards and risks associated with working on energised equipment. Pressure in a process system or equipment may cause movement.
- Ensure that vendor or manufacturer engineers supply safe system of working i.e. method statement or procedure etc.
- The Risk Assessment team must have the knowledge and understanding required to carry out a suitable and

sufficient Risk Assessment. • The need for inclusion of all the relevant Technical Authorities must be considered for involvement in the Risk Assessment process.

Contact Details: Bill Leighton - AMEC

actuator on gate valve



## **290: Failure of Hydraulic fitting on an NEI Favco 20/10K electric pedestal crane**

Summary: During a lifting operation Crane Operator lost con

Incident consequences  
(potential or  
actual):

Cause of accident *No details available.*  
or incident:

Activity Location: Fixed Installation

Activity Type: \*Any Activity Type

Description: During normal crane operations , the operator heard a loud bang from the crane machinery house. Immediately following this he lost control of the slew function of the crane. Due to the prevailing winds the crane “free slewed” in an uncontrolled manner. Hoist and Boom functions of the crane remained operational. Crane finally came to a halt due to load hoist rope snagging platform structure and the operator shutting the crane down. On investigation it was discovered that the loss of slew control was due to the fact that a hydraulic fitting in the main slew system failed. Later investigation identified that a “Swagelok” union in the line had recently been broken and re-assembled. The assembly had not been carried out correctly nor had the maintainers carrying out the work been recently trained in the use of “Swagelok” fittings. The original design of the crane did not allow the automatically application of the slew brakes following the loss of hydraulic containment. i.e Slew brakes were not “fail safe”.

Specific Equipment: *No details available.*

Lessons Learnt: 1) Although trained crane mechanics , the personnel had not been specifically trained in the use of “Swagelok” fittings. 2) The degree of awareness that the slew system on the crane did not “fail safe” on the loss of hydraulic containment.

Task Description: *No details available.*

Recommendations: 1) All personnel involved with assembly of “Swagelok” fittings to be suitably trained. 2) “Swagelok” training should be refreshed every 3 years as per “Swagelok” recommendations. 3) A hydraulic review and FMEA should be carried out on the crane. 4) PMR'S should be reviewed in line with FMEA findings 5) Modifications to the crane systems should be made to ensure that the slew brakes “fail safe”

Contact Details: Florence McGowan, Senior Administrative Assistant,  
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## 291: Dropped Object - Maritime Hydraulics Vertical Pipehandling System

Summary: Racker head (650kg) assembly fell (approx 90ft)to drill floor

Incident consequences (potential or actual): *No details available.*

Cause of accident or incident: *No details available.*

Activity Location: Drilling unit

Activity Type: Drilling, workover

Description: An incident occurred involving the vertical pipe handling system. The stand lift wire parted and the racker head assembly fell to the drill floor as the anti-fall device failed to function. No injuries were sustained as a result of this incident.

Specific Equipment: *No details available.*

Lessons Learnt: This incident is currently under investigation, parts involved have been sent ashore for specialist inspection.

Task Description: *No details available.*

Recommendations: Further details will be made known as able

Contact Details: davek.thomson@sdlabz.com

## 292: DON'T UNDERTAKE UNAUTHORISED TASKS

Summary:	IP severed tendon in finger when marking personal equipment with scalpel.
Incident consequences (potential or actual):	<i>No details available.</i>
Cause of accident or incident:	<i>No details available.</i>
Activity Location:	*Any Location Type
Activity Type:	*Any Activity Type
Description:	A chef was carving identification marks on his new knife handles with a scalpel that had been used for a special food preparation task. He was holding the knife firmly on the work surface as he made the cut. The scalpel blade broke due to the force being applied and the hand holding the scalpel continued towards the left hand where it cut into the middle finger. The outcome was a severed tendon.
Specific Equipment:	<i>No details available.</i>
Lessons Learnt:	This desperate accident must act as a warning to all. Do not use unauthorised tools and do not undertake unauthorised tasks. With some forethought, activities such as this would never be started.
Task Description:	<i>No details available.</i>
Recommendations:	All employees must be instructed not to undertake unauthorised tasks or use tools that they are not trained and authorised to use. Specialist tools should not be left accessible to untrained personnel who may be tempted to use them. All new tasks must be risk assessed before they are started. If there is any doubt about safety, the

task must not be undertaken until all risks are fully understood and controls put in place.

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## 293: Annulus Pressure

Summary: During clean up operations it was observed that annulus pressure was not increasing due to temperature changes.

Incident consequences (potential or actual): *No details available.*

Cause of accident or incident: *No details available.*

Activity Location: Drilling unit

Activity Type: \*Any Activity Type

Description: During well clean up operations, it was observed that annulus pressure was not increasing due to temperature changes. On investigation, after functioning closed the Tubing Hanger Annular Access Valve, 4850 psi was suddenly observed on the choke manifold. Further investigation revealed that the Open function was crossed with the Closed function. An EXAL digital pressure sensor (rated to 1500 psi in the annulus line) was damaged.

Specific Equipment: *No details available.*

Lessons Learnt: TBA.

Task Description: *No details available.*

Recommendations: Annulus pressure bled down from 4850 psi to 200 psi.  
Reverse Open/Closed signs on surface panel

Contact Details: *No details available.*

## **294: Rusty Metal fell from Engine Exhaust Tower**

Summary:

Incident            *No details available.*  
consequences  
(potential or  
actual):

Cause of accident    *No details available.*  
or incident:

Activity Location:    Drilling unit

Activity Type:       \*Any Activity Type

Description:            a rusty piece of metal approx. 8" x 8" x1/8" fell from an engine exhaust tower about 15' above the main deck. It landed in an area outside of the walkway. No damage involved and no injury to personnel.

Specific            *No details available.*  
Equipment:

Lessons Learnt:      Check that all redundant equipment that is not on the PM system is removed from the rig.

Task Description:    *No details available.*

Recommendations: Area of incident was barricaded off until cause of incident was investigated.

Contact Details:     vicki.riach@conocophillips.com

## 295: Dislodged Bracket fell to Drill Floor

Summary: Dislodged Bracket

Incident consequences  
(potential or  
actual):

Cause of accident or incident:

Activity Location: Drilling unit

Activity Type: \*Any Activity Type

Description: While tripping in hole with 5" DP roughneck heard something land on rig floor. A bracket was found on dill floor that had dislodged and fallen 140' from KEMS System in derrick.

Specific Equipment:

Lessons Learnt: TBA

Task Description: *No details available.*

Recommendations: Operations were suspended. Removed KEMS system proximity switches and brought down from derrick. Checked area for any loose objects. Reset and tested COM to lower position (set to 109'). Discussed with Drill Crews a plan to operate Drawworks under PTW with KEMS removed from service.

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## 296: Sudden Well Flow

Summary: Sudden well flow developed while POOH with the third BOP.

Incident consequences (potential or actual): *No details available.*

Cause of accident or incident: *No details available.*

Activity Location: Drilling unit

Activity Type: Production operations

Description: A sudden well flow developed with the third BOP and wellhead jetting & cleaning assembly (run using seawater as a cleaning medium) located inside 9 5/8" casing at a depth of 310 ft MD, 54ft below the subsea wellhead. Flow acted on the well protector tool, pushing the drillstring upwards, bending the pipe in the derrick between TDS and rig floor.

Specific Equipment: *No details available.*

Lessons Learnt: *No details available.*

Task Description: *No details available.*

Recommendations: Upper rams were closed on the drill pipe. Non essential rig personnel were evacuated by helicopter to another platform. EWSD Shutdown was initiated and relevant authorities informed.

Contact Details: vicki.riack@conocophillips.com

## 297: Pot Handles

Summary: Defective pot handles coming away from the pot - serious burn/scald potential

Incident consequences  
(potential or actual):

Cause of accident or incident:

Activity Location: \*Any Location Type

Activity Type: Catering / hotel services

Description: On 3 separate occasions over the past 2 months pot handles have broken away from pots due to wear and tear. This has happened while the pots were being moved or lifted from one area to another and while they contained boiling liquid. Had any of the pots been dropped a serious burn/scald could have occurred.

Specific Equipment:

Lessons Learnt: That such items require to be checked regularly for defects and replaced/repaired

Task Description: *No details available.*

Recommendations: Check handles on pots and other such utensils on a formal basis monthly and each time before use

Contact Details: murray-neill@aramark.co.uk

## 298: Reporting & Use of Defective Equipment

Summary: IP damaged tendon in fingers using a knife resulting in LTI

Incident consequences (potential or actual): *No details available.*

Cause of accident or incident: *No details available.*

Activity Location: \*Any Location Type

Activity Type: Catering / hotel services

Description: LTI following a cut to 3rd. & 4th. finger of injured persons left hand. The IP was preparing a cheese board in the galley and had removed his glove to roll out the cling film to cover the cheese. The cling film roll started to roll and as he tried to stop it slipping he cut his fingers with the knife he was using to cut the cling film. The cut was damaged a tendon, which required an operation at hospital. There was a cling film-dispensing machine onboard, however, it had been damaged at least 8 days prior to the incident. Since the machine was not in use, the cling film was being used in a loose roll, using a knife to cut it.

Specific Equipment: *No details available.*

Lessons Learnt: An underlying cause of the incident was the fact that the IP had not replaced his PPE when using the knife. PPE must be worn as instructed. A root cause of the incident was the fact that defective equipment, although taken out of use, had caused a change in work procedure and that there had been not recognition of the hazard and increased risk as a result. Defective equipment must not be used and must be reported for repair or replacement.

Any change to a work procedure must be risk assessed and controls put in place.

Task Description: *No details available.*

Recommendations: As lessons learnt

Contact Details: murray-neill@aramark.co.uk

## 299: Engine Room Fire

Summary:	A serious engine room fire was started when diesel fuel came in contact with Calcium Hypochlorite stored in the engine room.
Incident consequences (potential or actual):	<i>No details available.</i>
Cause of accident or incident:	<i>No details available.</i>
Activity Location:	Drilling unit
Activity Type:	Maintenance
Description:	Calcium Hypochlorite, used for the treatment of potable water, was stored routinely in a plastic bucket below the cold start air receiver. It is suspected the bucket may have had cracks at its base. Spilled fuel oil from the fuel oil purifier spread across the engine room through a containment bunding that had a 14" section missing. Diesel contacted the calcium hypochlorite bucket where a chemical reaction occurred and started the fire. The fire was successfully extinguished with the engine room's fixed halon suppression system.
Specific Equipment:	Calcium Hypochlorate
Lessons Learnt:	Carry out a space audit of all areas where containment coamings or bunds for equipment or storage tanks are maintained correctly to prevent the accidental spread of diesel, oil, base oil, aviation fuel or other combustible liquids. Ensure these containment coamings or bunds are intact and provide containment integrity. Ensure that drain plugs are correctly installed. The space audit should be carried out for rig installations and shore base facilities as applicable. Carry out a space audit of engine room and

machinery spaces to confirm effective escape routes are available and are clearly marked and unobstructed.

Confirm that all doors available to the space can be properly closed and door seals are in good condition and are functional.

Task Description: *No details available.*

Recommendations: Follow COSHH procedures and store Calc Hypochlorate only within approved storage area outwith the engine room.

Contact Details: None available

<http://dcwfptest.steel-sci.org/stepchange/News/StreamContentPart.aspx?ID=1348>

<http://msds.chem.ox.ac.uk/incompatibles.html>

## 300: Vehicle Battery Injury to Finger

Summary:	A 12 volt vehicle battery was being disconnected using a crescent wrench. The wrench slipped, and grounded out when it came in contact with metal.
Incident consequences (potential or actual):	<i>No details available.</i>
Cause of accident or incident:	<i>No details available.</i>
Activity Location:	Onshore office, support base, heliport
Activity Type:	Drilling, workover
Description:	The person received a burn on his ring finger as his gold ring was in contact with the wrench. The injury was completely around the ring finger, and severe enough to cause concern about the loss of the finger from lack of adequate circulation.
Specific Equipment:	<i>No details available.</i>
Lessons Learnt:	Most vehicle batteries have 600 - 800 cranking amps, compared to 75 amps for stick welding, and 300 amps for air arc welding. Severe burn injuries can occur if a battery is grounded out against metal objects such as rings and other jewellery.
Task Description:	<i>No details available.</i>
Recommendations:	Ensure that safe procedure is followed and that correct sequence of connection-disconnection is followed to ensure that this cannot happen (Earth off last and on first). Risk assessment should show that wearing of jewellery during this operation is a hazard and that mitigation would be temporary removal of jewellery during

the task.

Contact Details: none available

