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the flag

BP Shipping News

Safety Special



raising the flag together
clean seas ■ safe ships ■ commercial success

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The Flag Safety Special

The story so far



In my temporary role as the HSE Director earlier this year it was my responsibility to prepare information for the Leadership Team Safety Day in late March. During the process of going through all of our safety data an interesting picture emerged.

Continued >



The story so far (continued)

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As you'll see in the statistical data that follows, our Recordable Injuries, DAFWCs and spills to the environment (as we quaintly call a 'spill to sea') have decreased significantly over the last five years. Compared to the BP group and to our peers in the shipping industry our personal safety performance is world class.

How did this happen? Luck perhaps? No, it was something simpler than that – it was sustained leadership, focus and dedication by everyone in BP Shipping! We can all be proud that this focus on personal safety and spills delivered such outstanding results.



However, the sad and devastating loss of Raj Kumar Singh on board the *British Mallard* at the beginning of this year brought home to all of us that we can never afford to relax.

Taken in isolation, the *British Mallard* tragedy underlined the absolute imperative to act now to minimise the risk of future safety incidents of any nature. Unfortunately there are other factors that add to our sense of urgency:

1. After the dreadful accident at BP's Texas City refinery in March, 2005, which left 15 people dead, and other incidents within the BP group, an independent group of experts (the Baker Panel) was formed to review safety performance and provide us with recommendations. The Baker Report findings (which concentrated on refinery operations in the USA) were generally applicable across the BP group, including Shipping. The bottom line is that while we have a great personal safety performance we were found to have significant gaps in process safety. This was emphasised by the feedback we received from you about the Baker Report.

Left: Director of Fleet Operations Dave Williamson taking part in a BPS Flag signing ceremony on board a BP Shipping vessel as part of the safety campaign



The story so far (continued)

> continued

2. The Baker Report challenged the BP group to become a world class leader in process safety. The group has reacted with a number of initiatives that we will need to act on. The details are discussed later in this publication.
3. The results of the "getting HSE right" (gHSEr) audit held in February this year identified 32 findings of which 11 focused on issues concerning "People, Training and Behaviours." As a result, this element was rated as "Unsatisfactory." These findings need to be corrected and closed out within the agreed timeline.
4. In addition to the *British Mallard* fatality we have had other process safety incidents recently in BP Shipping to which we must respond. These are incidents that are not directly related to personal safety and include groundings, collisions and other incidents.
5. Feedback from our Fleet Safety Training Officers (FSTOs) indicates that our safety culture is not truly understood and engrained throughout the organization. More than 1,000 new officers have had to absorb BP safety values and operational procedures in the past three years. Each year we also recruit at least 60 new cadets. Perhaps we should not be surprised that our safety culture is not as widely and fully embedded as we would like.
6. At the moment our Near Miss data is surprisingly consistent. It constantly highlights "Failure to wear the correct PPE" and "Poor Housekeeping." What is most troubling is the persistence of "Failure to Follow Procedures" as a factor. This is clearly an issue that needs urgent corrective action. As we move forward to a more sustainable safety culture, we should aspire to a position where we deal only with Near Miss Reports, rather than reacting to actual incidents.

During the Leadership Team Safety Day these were the key data points we discussed at length. At the end of the day we came out with a document that outlines a clear "Journey Forward." Briefly, it is designed to create a safety culture where:

- people attempt to predict where the next incident might occur
- resources are available to identify, and fix, defects and hazards before they cause harm
- the norm is for open and transparent conversations about bad as well as good news
- the workforce is trusted and involved in providing the answers
- learning from incidents is institutionalized

All of us who work for or with BP Shipping are now embarked on a journey to create an organization that has a coherent, consistent, and deeply-embedded safety culture – one that is capable of facing the challenges posed by the BP group's ever-more demanding safety expectations.

At the Leadership Team Safety Day at the end of March we promised to "communicate our safety expectations clearly" - and provide a regular HSE summary for the entire organisation.

This Flag "Safety Special" is the first example of this commitment in action. It is designed to offer context, information and analysis - and show where and how we can improve.

The safety of each individual and the safety of each of our ships, is a matter of great importance for us all. It can't be repeated too often – safety is our number one priority.

Simon Lisiecki,

Vice President, Government & Industry





OurVision

By 2010:

- We will lead the way in shipping-related process safety and in all phases of design, construction, maintenance, operations and decommissioning.
- All collisions, groundings, fires, breakdowns, spills and personal injuries will be unacceptable to this organisation
- There will be robust training for the entire organisation in safety skills and safety leadership
- All employees will routinely challenge inadequate safety procedures and practises.

From 1st June 2007 the BP Shipping Leadership Team consists of:

David Baldry
John Ridgway
David Williamson
Simon Lisiecki
Enys Dan
Adrian Howard
Kate Lovett
Martin Shaw
Steve Paterson
Paul Oliver
Gavin Kramer
Bob Baldwin
Tim Reading
Andrew Blakeman

The Flag Safety Special

The Context

In the shipping industry we are a top quartile safety performer. However, there has been a marked increase in the severity of our major incidents in the last few years which is of great concern. Our latest safety statistics show:

- A growing number of machinery failures, main engine-related incidents and collisions and fires.
- A rising number of incidents related to fuel and cargo systems.
- A significant increase 2002-07 in injuries suffered by engineering officers and ratings.
- An increase in lower body injuries, mostly due to slips, trips and falls.

The most common safety deviations remain those involving Personal Protective Equipment (PPE), Procedures and Reactions of People (behaviour).

There are some positives too. There has been a fall in the numbers of property loss and equipment damage incidents being reported, and their incidence is at lower levels of severity. The total number of personal injuries is declining. Seamen and deck officers are suffering fewer injuries. Advanced Safety Audit (ASA) conversations are trending down.

It is clear that some of the increases being recorded, such as equipment damage, reflect a more robust and open reporting culture in the fleet. This is entirely positive and the Leadership Team welcomes the development.

However, it is too easy to explain away negative trends by simply ascribing them to a stronger reporting culture. To give one example: an Incident Immediate and System Cause Analysis covering 2006 and 2007 (year to date) found that 50% of incidents had their immediate cause in a failure to follow procedures. Some 40% of incidents had their root cause in factors relating to behaviour/mental state/stress/physical condition.

SafetyMoment

"I was a young deck officer leaving Aden on a ship when the second mate broke his leg in a mooring incident involving the mooring wire. He was screaming in pain. It was awful, and I just thought to myself 'No one is ever going to be injured on any ship I command.'"

Simon Lisiecki

What the gHSEr Audit found

Between January 22nd and February 2nd, 2007, an internal "getting HSE right" audit of BP Shipping was conducted at the request of David Baldry, GVP and CEO BP Shipping and Aviation.

The previous such audit had been carried out in 2000 since when the organisation had undergone significant growth. It was hoped that an independent internal audit would help to identify gaps and opportunities for improvement within the HSE processes currently employed in BP Shipping and provide a road map on how we can improve our operations over the coming three to five years.

A cross section of BP Shipping personnel in offices in Sunbury, Canary Wharf and Singapore were interviewed and visits made to four vessels, Executive Ship Management (ESM) in Singapore and the HHI Shipbuilding Yard in Ulsan, Korea.

The subsequent report, while identifying many positive HSE activities in BP Shipping, concentrated on the gaps relative to BP group expectations. In general it was felt that the organisation had become "over-reliant" on statutory compliance with shipping industry regulations while not fully addressing BP group HSE expectations. As a result, the report found that "gHSEr is not fully embedded in BP Shipping's way of working."

Statistically, the audit proposed 32 Findings for which corrective actions were agreed with BP Shipping, and 12 Opportunities for Improvement.

Eleven of the 32 Findings were categorised under "People, Training and Behaviours." As a result this Element was indicated as "Red" and "Unsatisfactory" in the gHSEr audit. Activities that led to these Findings included individuals working without correct permits and using mobile phones while working.

The Audit Team pronounced itself "extremely impressed" with the training facilities/ programmes at ESM and debated the possibility of BP Shipping creating a training academy. It also recommended adopting the use of fire retardant overalls, closing out and cascading incident reports and "lessons learnt" more rapidly and urgently reviewing working at heights procedures with respect to onboard ladders.

The audit concluded: "To address the (issues raised), the Audit Team believes that BP Shipping has to take strategic and sustainable decisions to correct the situation within their organisation."

The Context (continued)

Critical Factors: Major Incidents Summary 2006/07

Border Heather HIPO December 2006: Engine failure. Contaminated fuel from a supplier was one factor. Poor familiarity of the staff with the plant, and the engine room layout, described as “contributory factors.”

British Cygnet HIPO December 2006: Container ship collided with *British Cygnet* (below) while it was navigating a dredged channel. There was inadequate Master/Pilot exchange of navigational information when the *British Cygnet*'s Master returned to the bridge just prior to the collision. The Pilot made assumptions as to the intentions of the other vessel involved, and the Master and Officer of the Watch accepted these assumptions without challenge or any evidence he was correct. There were no positive VHF communications between the vessels in a navigationally unusual situation. Contradictory instructions were passed over the VHF by the Pilot when he became aware that there was imminent danger of collision. There was possible interaction between the vessels as a result of attractive pressure fields around the vessels created by their fast movement through the water, close proximity and a limited channel width.

British Vine DAFWC November 2006: Serious injury to Chief Officer whilst attempting to heave anchor in storm conditions. The Master did not pick up anchor and ‘heave to’ in advance of the storm’s arrival. The Anchor Party went forward in dangerous conditions without assessing the risks.

British Harmony Loss of Containment November 2006: Spillage of bunker fuel while refuelling. Bunkering operation was not conducted in full compliance with BP Shipping’s bunkering policies and procedures. Bunker team did not maintain full control of the bunkering operation. Initial calculation for bunker intake was incorrect and not verified.

British Loyalty Tank Over Pressurization March 2006: Structural damage sustained. The hydrostatic head caused on the tank by cargo backfilling COT 5S caused the deck to press up and distort frame. Discharge procedure did not take into account the possibility of back filling tanks. Process of loading tanks to overfill alarms negated the ability of the alarm system to be used to identify tanks overfilling during discharge. Pressure alarms and setting not set to levels sufficient to offer protection to tank structure.



Lessons Learned Report

Fatal Injury - Tanker

British Mallard

Type of Incident:

Fatal Accident. Person trapped between elevator shaft, ladder and elevator car.

Business or Performance Unit and Country:

BP Shipping, UK

Location of Incident:

Oil Tanker *British Mallard* while berthed at Kwinana Refinery, Australia.

Date of Incident:

January 27th, 2007 @ 18:00 hrs local time.

Continued >

Lessons Learned Report

Fatal Injury - Tanker *British Mallard*

> continued

Brief Account of Incident:

After a malfunction of the ship's elevator, the Electrical Technical Officer (ETO) placed "Do Not Operate" notices on all the elevator doors and requested the 2nd and 3rd Engineers to assist him to conduct the repairs. The 3rd Engineer was directed to communicate control panel error codes from the Elevator Machinery Space and the 2nd Engineer proceeded with the ETO to manually open the elevator door to access the elevator shaft. After the ETO entered the shaft and onto the escape ladder the 2nd Engineer was requested to release and close the doors.

Moments later after trying to contact the ETO and getting no response the two engineers went to the deck above and they manually opened the door where they found the ETO trapped between the shaft, the ladder and the elevator car. Getting no response from the ETO they raised the ship's general alarm. Attempts by the ship's personnel, refinery emergency response team and the State Fire and Emergency crews to rescue the ETO were unsuccessful and the estimated time of death was 18:45 hrs.

Investigation team considers that the most likely cause of the fatality was that upon the elevator door being closed, or by the ETO actions, the safety circuits were closed and the elevator car responded to previous instructions, suddenly moving and trapping the ETO.

Actual Outcome:

Fatal crushing injury

What went wrong:

- Failure to follow established "Control of Work": As the Performing Authority, the ETO, failed to follow the established "Control of Work" procedures.
- Improper use of Equipment: Elevator was not placed in the "inspection mode" prior to commencement of maintenance.
- Inadequate Identification of Job Hazards: If any Job Hazard Analysis was carried out, it failed to identify potential hazards.

What went well:

- Raising the alarm and the response by the ship's crew, the refinery emergency response team and the State fire and Emergency crews.
- Cooperation with the relevant authorities and investigation.

Golden Rules:

- Permit to Work: Permit not obtained
- Confined Space Entry: Inadequate job assessment
- Energy Isolation: Commenced work while elevator was energized and not in "Inspection Mode"

Resultant Recommendations:

- Establish Policy Standards and Procedures (PSP) and a preventative maintenance program for shipboard elevator maintenance.
- Conduct and enforce Job Hazard Analysis programs prior to commencing work.

- Review and identify other equipment on board with significant hazards, (including equipment where, by virtue of design proper lock out is not possible) and develop specific processes for them. Consideration to be given to developing specific training.
- To improve the work planning process, establish and monitor key performance indicators to compare the ratio of scheduled and unscheduled maintenance.
- Ship Management Team should actively monitor work activities to provide assurance that the processes are in place and being followed.
- Eliminate the use of non-BP Shipping standard notices by explicitly mandating the adopted Scaff Tag "Multi-tag" system.
- Elevator access key to be held by the Chief Engineer, and only issued after his review of a task risk assessment.
- Highlight the hazards associated with conducting work on elevators while not in the "inspection mode" in the manufacturers' manuals and planned maintenance system.

Key Messages:

- Elevator maintenance is inherently dangerous and should not be conducted without a documented and detailed task risk assessment.
- Ship Management Team to be proactively engaged in pre-planning of tasks that arise outside of the scope of the daily work plan.

The *British Mallard* Fatality: January 2007

An Update

Australian Transport Safety Board report (excerpt from Lloyd's List article): "An accident that killed an electrician on board a BP tanker would not have happened if the crew had followed procedures, a report from the Australian Transport Safety Bureau has ruled. The ATSB determined first that the lift instruction manuals did not provide 'sufficiently detailed and unambiguous safety guidance'. Second, the ship's safety management system, including the permit to work system and the risk assessment process, had not been implemented. Third, the report added: 'The electrical technician, the second engineer and the third engineer were either not aware of, or did not consider, all of the hazards associated with working in the elevator shaft.'

There is a formal recommendation that the lift manufacturer, Hyundai Elevator, should address instruction manual issues. Two safety advisory notices, addressed to vessel operators generally, call for greater awareness of risk minimising strategies and greater consideration of the hazards involved in working in lift shafts on ships. The full report is at www.atsb.gov.au/publications/investigation_reports/2007/MAIR/mair235.aspx

Capt. Bob Fleming adds: "If anybody reads the ATSB report fully, and (for BP people) they read the internal fatality investigation report located on BP's Tr@ction incident reporting system, and the one pager we shared widely internally and with industry at the time of the incident, then they will have the full picture.

A proper professional will consider all the data that has been made available before deciding to challenge the ATSB conclusion which was reasonably accurately reported in the very short Lloyd's List article. We have been open about the incident all the way through. We provided the ATSB with every bit of evidence we had from our own internal investigation, including supplying a full copy of the Root Cause Analysis (RCA) report, and provided support and feedback on the draft report they shared with us.

The ATSB acknowledged that we had a safety management system in place with Job Hazard Analysis/Task Risk Analysis and Permit To Work (JHA/ TRA and PTW) elements. It refers (in its report) to our isolating arrangements and hazardous work permits and that the safety management system had been demonstrated onboard on previous occasions and that ship's staff had been trained in its use. It also states that, had that system been used, the accident would probably not have happened.

The reasons that the hazards of working in the elevator shaft were not recognised and/or fully mitigated can only be speculated on as the principle witness is tragically not able to give his side of the story. But poor original vendor's manuals (an example is given in the ATSB report) certainly did not help in understanding elevator work safety procedures. Physically preventing unauthorised ad hoc access to the elevator shaft for unscheduled maintenance is one of the additional controls put in now. All the actions we have taken are fully detailed within the ATSB report under section 4.1 "Safety Actions Taken by BPS."

The Context (continued)

Near miss reporting

Near Miss reports are a gift. They allow us to “swim upstream” of actual fatalities, groundings, collisions, fires and explosions, so allowing us to take corrective action to processes and procedures before they actually happen.



In the Safety Culture Ladder (on following page), we are in the Reactive phase judging by our current performance. In this condition Safety is taken seriously, but only for a short period of time after an incident. Typically there are lots of discussions in this phase about reclassifying incidents. Managers feel they need to force the workforce to comply with rules and procedures. And people still say “it’s different here” when told about safety issues.

To get to the Proactive or Generative phases - where serious attempts are made to predict what the next accident might be, fix things before incidents occur, seek out bad news and welcome new ideas from everyone - will take time and effort and a change in our safety culture.

One of the fundamental tools we have available to us to reach these levels is proactive Near Miss reporting. Our Near Miss reporting is good and we urge you to keep on sending in these reports. They are invaluable to our shore-based teams in shaping FSTO ship visits and helping the Superintendents to focus on day-to-day safety operations.

Nevertheless, it is what the Near Miss reports actually record that matters most. Today the position unfortunately is that over the last five years the top three Near Miss categories have remained the same:

- Failure to comply with processes and procedures
- Failure to use Personal Protective Equipment
- Poor Housekeeping

Two conclusions follow.

- 1:** All three Near Miss categories identified above can be stopped by the Shipboard Management Team. If they can’t be solved on board who will solve them? We should always keep in mind that failure to comply with procedures was the cause of the loss of Raj Kumar on *British Mallard*.
- 2:** Based on the number of actual incidents occurring in the engine room or whilst navigating underway it would appear that there is an under-reporting of Near Misses in these two areas.

The safety culture ladder is a way of showing where a BU or site fits into a framework that describes how safety culture develops in an organisation. It ranges from “pathological” (people don’t want to know about safety; messengers are punished; responsibility is shirked, failure is punished or concealed, and new ideas are discouraged) at the bottom of the ladder to “generative” (actively seeking information, messengers are trained and rewarded, responsibility is shared, failures lead to far reaching reforms and improvements, and new ideas are welcomed) at the top of the ladder.

BP SHIPPING SAFETY CULTURE LADDER

GENERATIVE

Management knows what is really going on in the business, because the workforce trusts them and is willing to tell them. Bad news is sought out so that the business can learn from its failures and new ideas are welcomed from everyone. People are mindful of what could go wrong, even when they are not having any incidents or near-misses. Safety is seen as good business.

PROACTIVE

People start to try to predict what the next incident might be, and resources are made available to fix things before incidents occur. Management is open to bad news but they still focus on statistics. The workforce is trusted and involved – they influence the way that work gets done.

CALCULATIVE

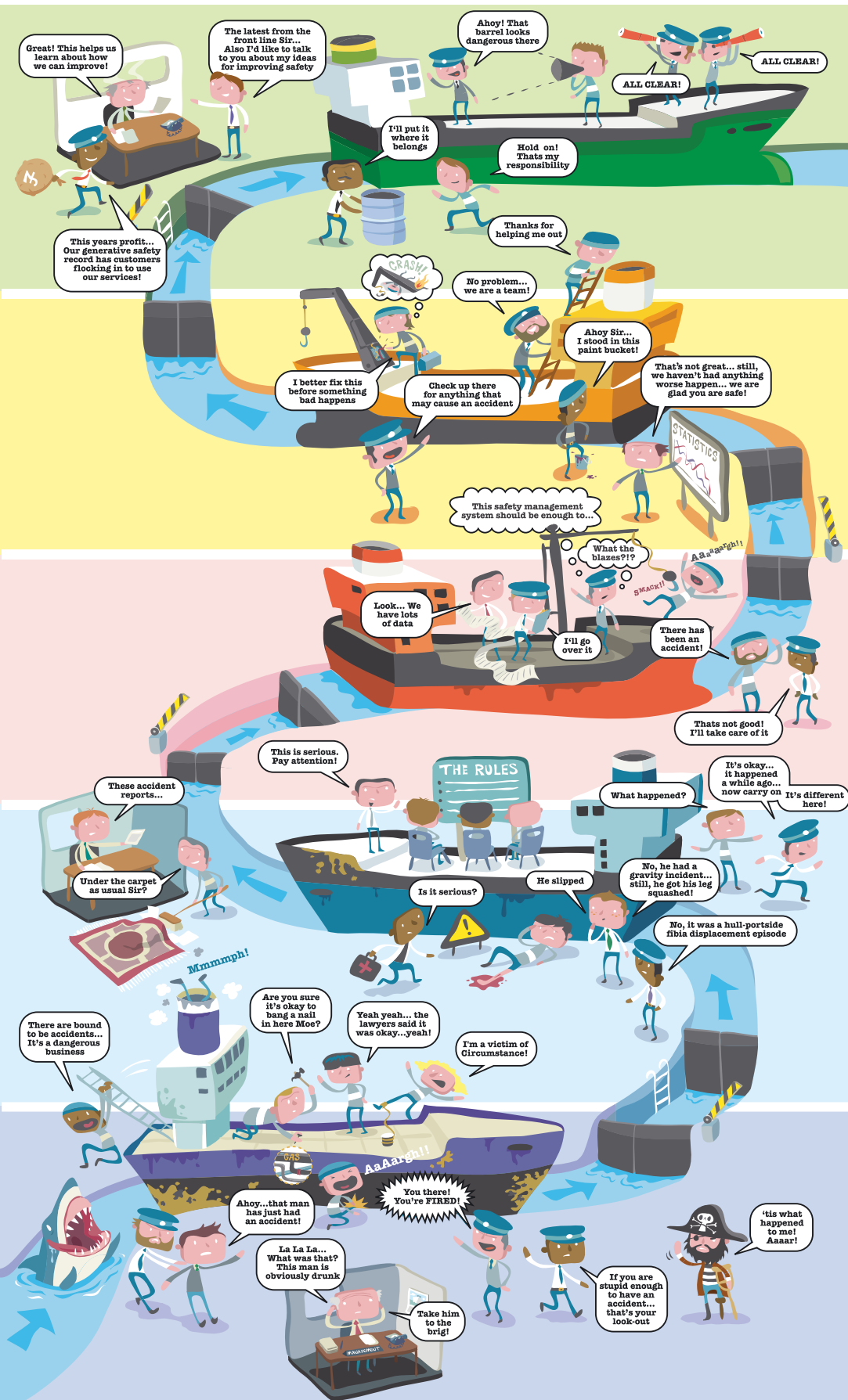
Lots of data is collected and analysed, and lots of statistics are generated from them but it is mostly descriptive. People think that because they have a safety management system in place then that is enough to ensure safety and are surprised when incidents occur. Bad news is tolerated, but still unwelcome.

REACTIVE

Safety is taken seriously, but only for a short period of time after an incident. There are lots of discussions to re-classify incidents. Managers feel they need to force the workforce to comply with rules and procedures. People say that “it’s different here” when they are told about safety. Bad news is kept hidden.

PATHOLOGICAL

People don’t really care about safety – if the lawyers/regulator said it was okay then they can go ahead. They believe that there are bound to be accidents as it’s a dangerous business. If someone is stupid enough to have an accident then they get fired. Bad news is ignored and the messenger is punished.



The Context (continued)

Exerpts from a typical FSTO report

"The vessel was boarded in xxx. The FSTO disembarked two weeks later. The vessel's trading pattern during my visit was very intense.

The Shipboard Management Team consists of two heads of department – a Chief Officer and Second Engineering Officer, both new to the company. The majority of Officers on board had all joined the vessel within days of each other.

Designated training sessions were not easy to achieve due to the trading pattern of the vessel and trying to implement the planned maintenance system. Hours of rest of most personnel was another factor. The majority of training took place in the work site prior to tasks starting or whilst being undertaken. Coaching also took place through the HSSE management tool of Advanced Safety Auditing. In total 173 man hours were officially put aside for training...

The morning work plan meetings were carried out very well. All safety points were discussed and any incompatible work was quickly identified and rescheduled. The engine room toolbox talk with all engineering officers was also observed, and safety was the priority for every topic discussed.

One HSSE safety incident report was submitted during the period of the visit – the 6th incident report to date. All persons involved were professional in their reporting and handling of the situation.

The handling, stowage and care of technical safety equipment on board requires improvement. Lifting gear has layers of paint over some pieces of equipment which makes it difficult to carry out a thorough inspection. The red safety line was found to be covered with grease and paint and not maintained as stipulated...

SafetyMoment

"Once, when I was working in a shipyard in Oregon, a boilermaker I'd got to know was killed when he fell 45 feet onto a floor while holding a tank lid. He wasn't wearing a safety harness. One simple action would have saved his life. Now, if I ever see similar situations going on in an organisation, that's when I know there is something wrong with its business performance. The two go hand in hand - that's the crux for me." **Paul Manzi**

The Context (continued)

Safety and operational integrity in BP Shipping

In the wake of Texas City and other safety-related incidents, the BP group reaffirmed its commitment to improve safety and operating performance through the “6 Point Plan” (see below). It also began development of a new safety and operations framework known as the “Operating Management System” or OMS.

OMS is designed to translate the elements of the “6 Point Plan” into a comprehensive framework for operations management. It will cover the three dimensions of safety – personal safety, process safety (see definition in box) and environmental safety.

In the words of John Mogford, BP’s Senior Group Vice President, Safety & Operations, “OMS makes it possible to reproduce what happens consistently, safely and at high quality over and over again.”

The need to improve BP’s management of operations was reinforced by the Baker Panel report which placed special emphasis on process safety (see previous articles). The importance of the “6 Point Plan” and OMS to the BP group response is illustrated below:

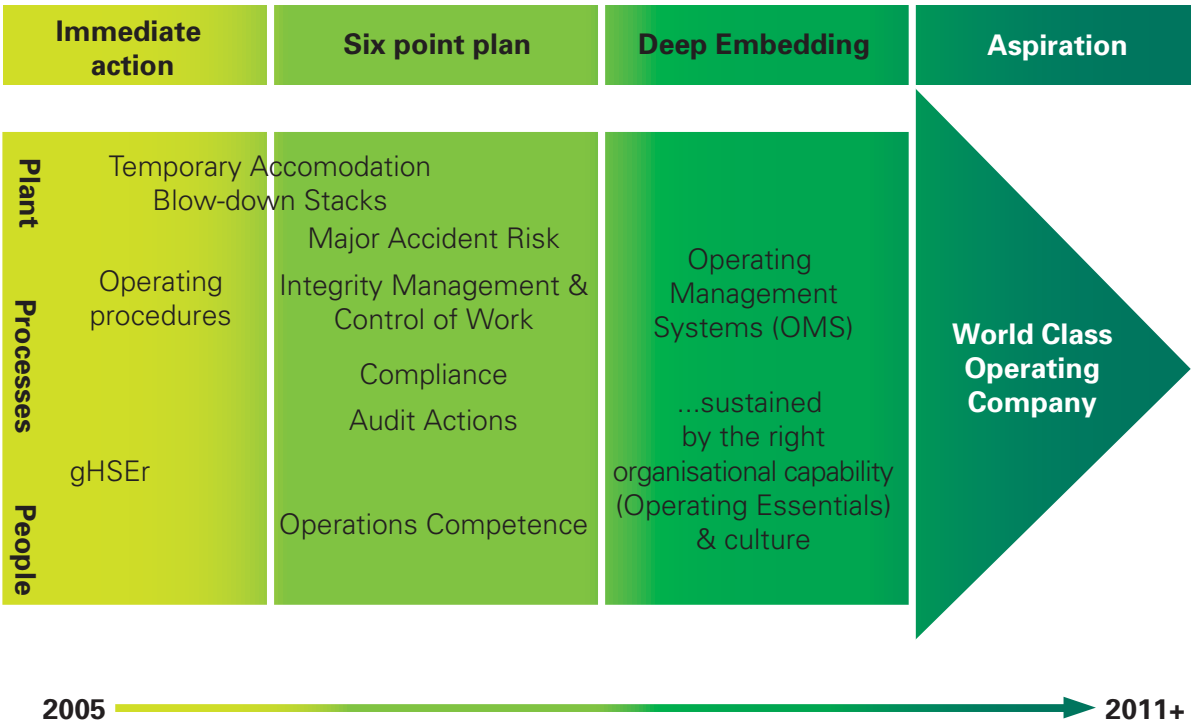
Within BP Shipping Paul Oliver, Vice President of Strategy & Compliance, is accountable for the implementation of both the “6 Point Plan” and OMS. In Paul’s team, Graham Delaney, Manager OMS Projects, is responsible for managing implementation of the group’s Integrity Management (IM) Standard and Control of Work (CoW) Standard. Glenn Sampy, Manager Compliance, is responsible for tracking and verifying BP Shipping’s compliance with the “6 Point Plan” and OMS.

BP Shipping’s operating processes are already substantially in line with BP group requirements and it is important to note that we are not being asked to replace existing processes where they are already fit-for-purpose.

Nevertheless, the *British Mallard* tragedy and the findings from the gHSEr audit earlier this year show that there is no room for complacency. Our aims now are to identify improvements that will further mitigate risks; to simplify and de-clutter wherever we can; to track and verify ongoing compliance; and to drive continuous improvement.

As an example, one of the elements of the “6 Point Plan” is the CoW which is already being implemented within the fleet. The user-friendly Job Hazard Analysis (JHA) incorporated in CoW will, if diligently applied to each and every task, much reduce the risk of fatalities, injuries and damage to equipment.

BP Group Response



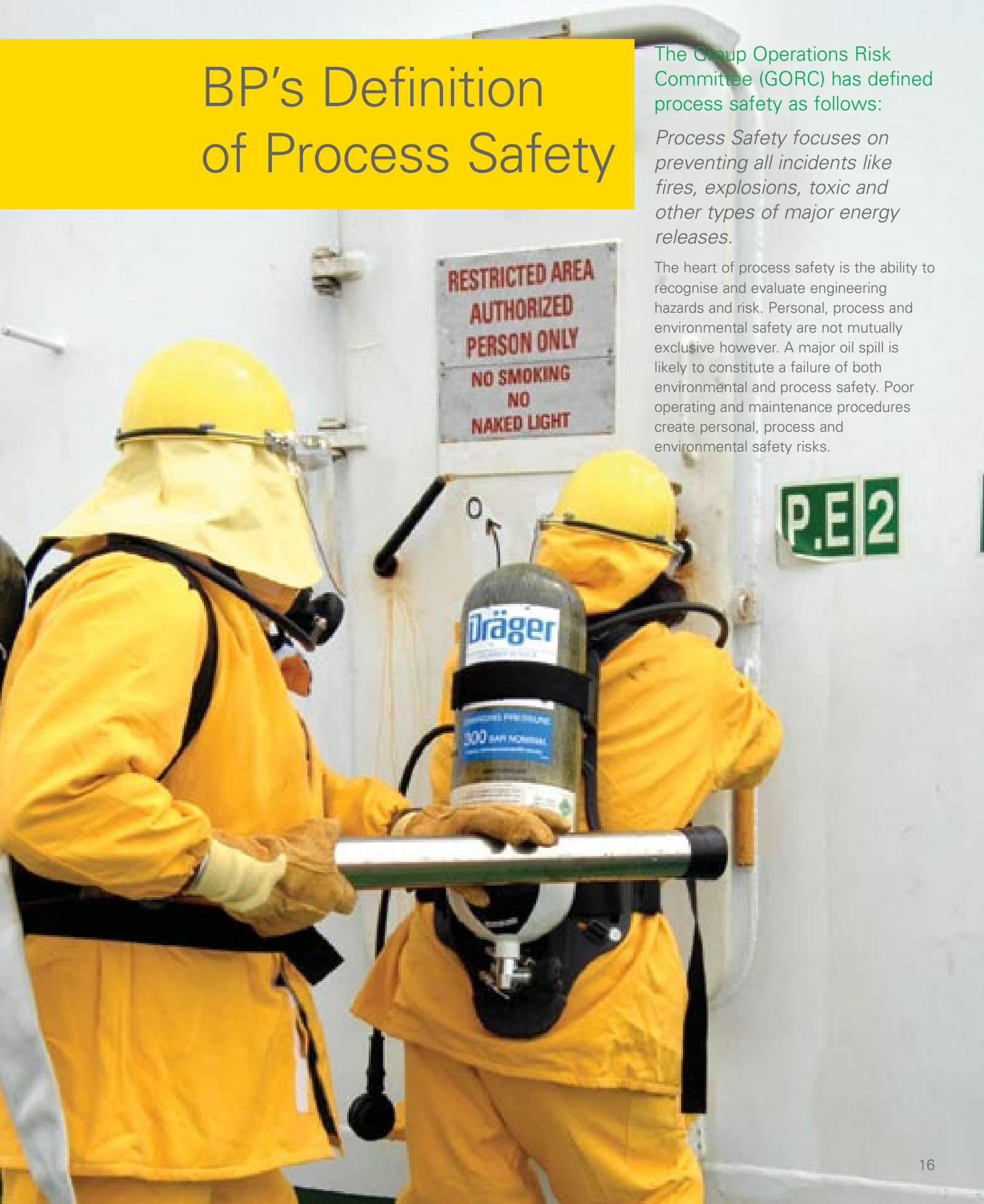
The Context (continued)

BP's Definition of Process Safety

The Group Operations Risk Committee (GORC) has defined process safety as follows:

Process Safety focuses on preventing all incidents like fires, explosions, toxic and other types of major energy releases.

The heart of process safety is the ability to recognise and evaluate engineering hazards and risk. Personal, process and environmental safety are not mutually exclusive however. A major oil spill is likely to constitute a failure of both environmental and process safety. Poor operating and maintenance procedures create personal, process and environmental safety risks.



The Context (continued)

The Six Point Plan

What it means for Shipping

- 1 Complete the "Texas City commitments":** Remove all occupied portable buildings from "red zones." Remove/replace all blow-down stacks – *Not relevant to Shipping*
- 2 Conduct Major Accident Risk assessments (MAR)** to identify BP's biggest risks and develop plans to mitigate them – *An MAR has been completed for the deep sea fleet. A barging MAR will be completed by end 2007*
- 3 Implement new Group Standards:** namely Integrity Management and Control of Work – *The IM Standard is targeted for implementation by end 2008. Roll out of CoW Standard to the fleet has begun. Full implementation will be achieved at or before end 2009.*
- 4 Enhance Legal HSE Compliance:** "Project Emerald" is intended to identify all legal/regulatory requirements affecting BP's operations and to put in place the systems to track and verify compliance – *Implementation in the USA is almost complete. Worldwide implementation will be complete by end 2008.*
- 5 Follow up audit actions:** Clear the backlog of overdue action items from safety and operations audits and discharge new actions promptly – *Actions from the February 2007 gHSEr audit are being tracked closely. Timely close-out is a top priority.*
- 6 Improve Core Competencies:** Implement more rigorous frameworks to ensure competence in safety and operations – *BP Shipping's Leadership Team has completed an assessment of its competencies in safety and operations leadership. Training will be identified as necessary. Work will begin soon to supplement and enhance our existing industry-mandated competency frameworks for application throughout BP Shipping.*



SafetyMoment

"I joined my second ship, *British Renown*, in 1975 as a first trip junior engineer. Just before I joined there had been two fatalities on *British Renown* during a cargo tank inspection in which ship's staff were using breathing apparatus to enter a tank that had not been gas-freed. One of those who died was a deck cadet who had entered the tank under the supervision of a senior officer. What frightened me most of all was the realisation that, as an inexperienced junior officer myself, I would probably have entered the tank under the same circumstances. The incident left me with two very important messages that I will never forget. If it doesn't feel safe, it probably isn't safe. So don't do it. And, we all have a duty to ensure that our actions and decisions do not put others at risk, especially when they are less experienced than we are." **Adrian Howard**

The Context (continued)

What you think

Following the Baker Panel report into the Texas City incident in 2005, the BP Shipping Leadership Team sought feedback from all levels in BP Shipping to assess the extent to which the Panel's findings are relevant to our operations and activities and what changes and initiatives might be possible.

Feedback was collected under four headings – Process & Procedures; Personnel; Training; and Leadership. Points raised and discussed, but not necessarily actioned, included:

Process & Procedure

A prevailing view is that new safety initiatives should be simplified and better coordinated. Many complained of "initiative overload" to the extent that new initiatives are introduced before current processes and procedures have been absorbed. Much safety documentation is regarded as cumbersome. More focus, it's felt, should be placed on major incidents rather than slips and trips. Some lack of compliance with the BP Golden Rules of Safety was indicated. In terms of process, it was suggested that more emphasis be put on leading, rather than lagging, indicators.

Personnel

To engender greater loyalty, there was support for the idea of "Team BP Shipping." Greater attention might be paid, it was suggested, to core competencies through more basic training and more time spent in a job. Personal accountability was stressed – along with the need to accept responsibility for failures and discipline for non-compliance. There was wide support for the appointment of full-time safety officers onboard BP Shipping vessels.

Training

Induction courses for all newcomers joining BP Shipping proved a popular suggestion together with the creation of an in-house training academy concentrating on safety-related issues. A better balance was urged between Computer Based Training (unpopular) and practical and class room training.

Leadership

A better understanding of leadership roles, responsibilities and accountabilities is needed together with more transparency, clearer communication and more upward feedback.

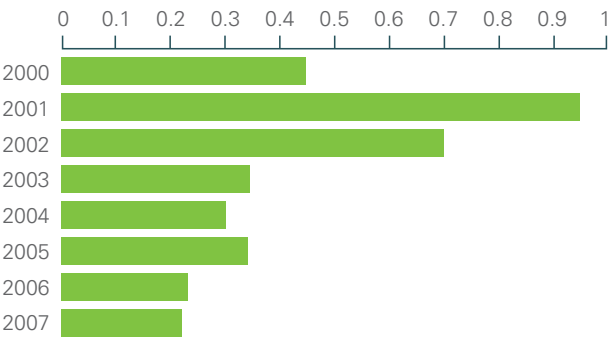
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Safety thoughts from BP Shipping Staff

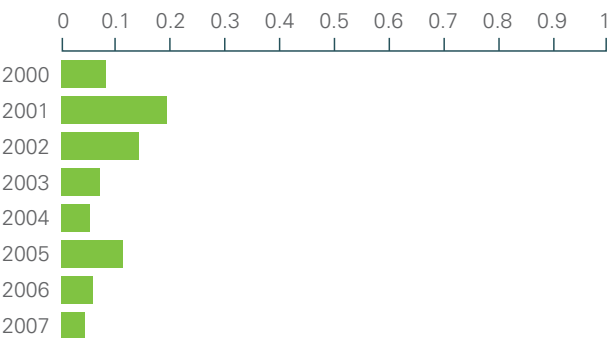
1. We don't do what we say we're going to do. Important things like closing out RCAs fall to the bottom of the pile of work.
2. Many of the ships don't want to step up and take responsibility. Instead they pass information to the office for instructions
3. The FSTO programme is a great success. It highlights a number of issues and provides the Superintendents with better focus.
4. Our actions sometimes indicate we have rules. But there is a pervasive feeling that rules don't really need to be followed.
5. We struggle to find the right people to serve on the "Boarder" class boats – they are outside our HR system. We need to invest in people – as we do in our deep sea staff - if we want to turn them around.
6. Superintendents are loaded up with non-core tasks (feeding Tr@ction, AMOS, chasing invoice approvals). They're spending less and less time minding the shop.
7. We are badly under-resourced to carry out all our expectations.
8. Quality induction training will alleviate a lot of the problems we have in the fleet.
9. Leaders need to set realistic expectations and give the ships clear steps to achieve long term objectives.
10. Failures of propulsion, steering gear failures, groundings, collisions and fires are our biggest risks. We need to focus on them.

The Context (continued)

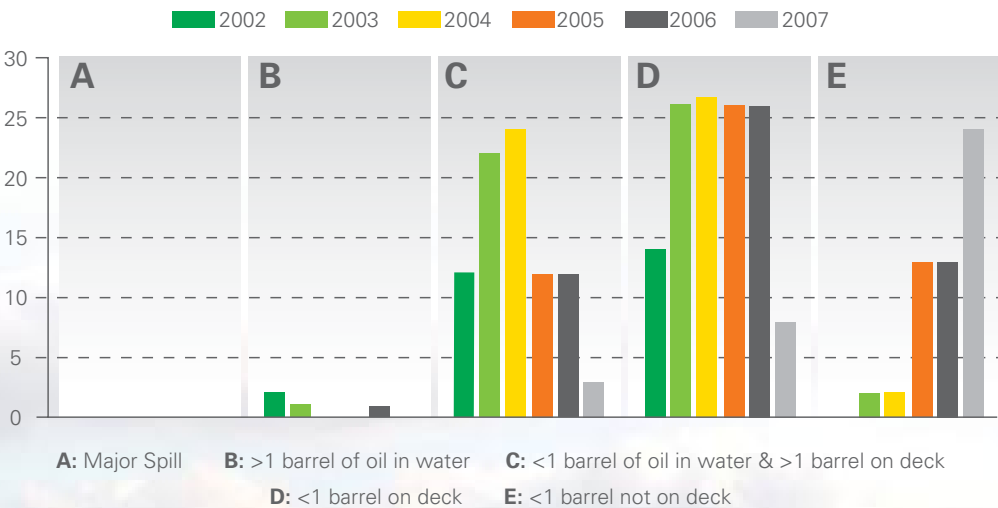
Recordable Injury Frequency Rates 2000 - 2007



DAWFC Frequency Rates 2000 - 2007

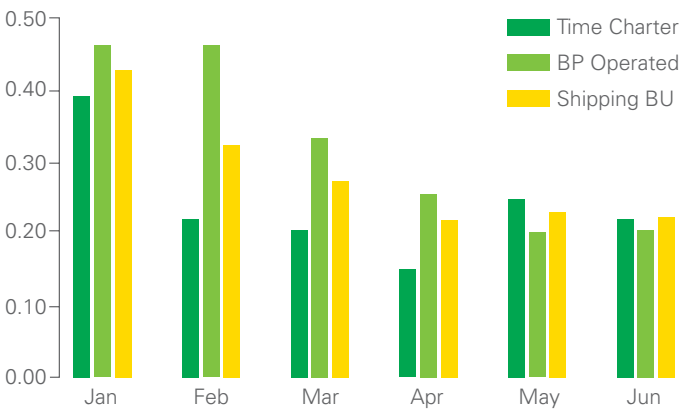


Loss of containment by category 2002 - 2007

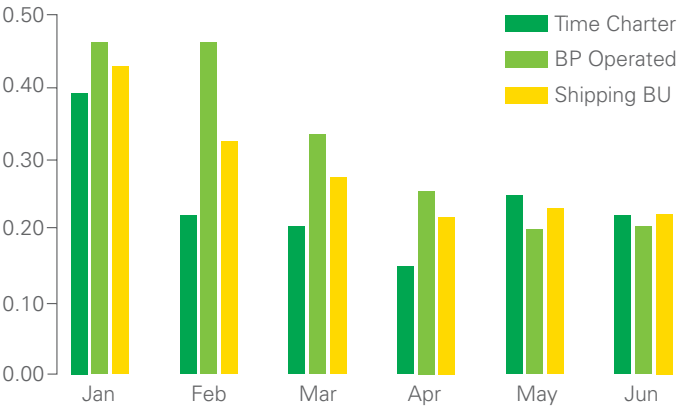


The Context (continued)

Recordable Injury Frequency Rates 2007



DAWFC Frequency Rates 2007

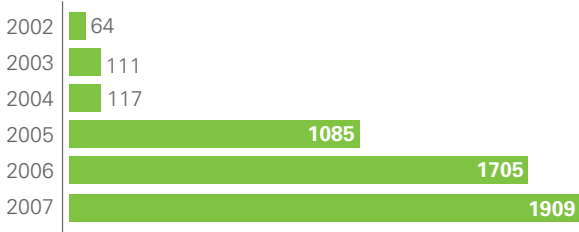


ABOVE:

Day Away From Work Case (DAWFC): A work related injury which causes the injured person to be away from work for at least a normal shift, after the shift on which the injury occurred, because he/she is unfit for any work as deemed by a physician.

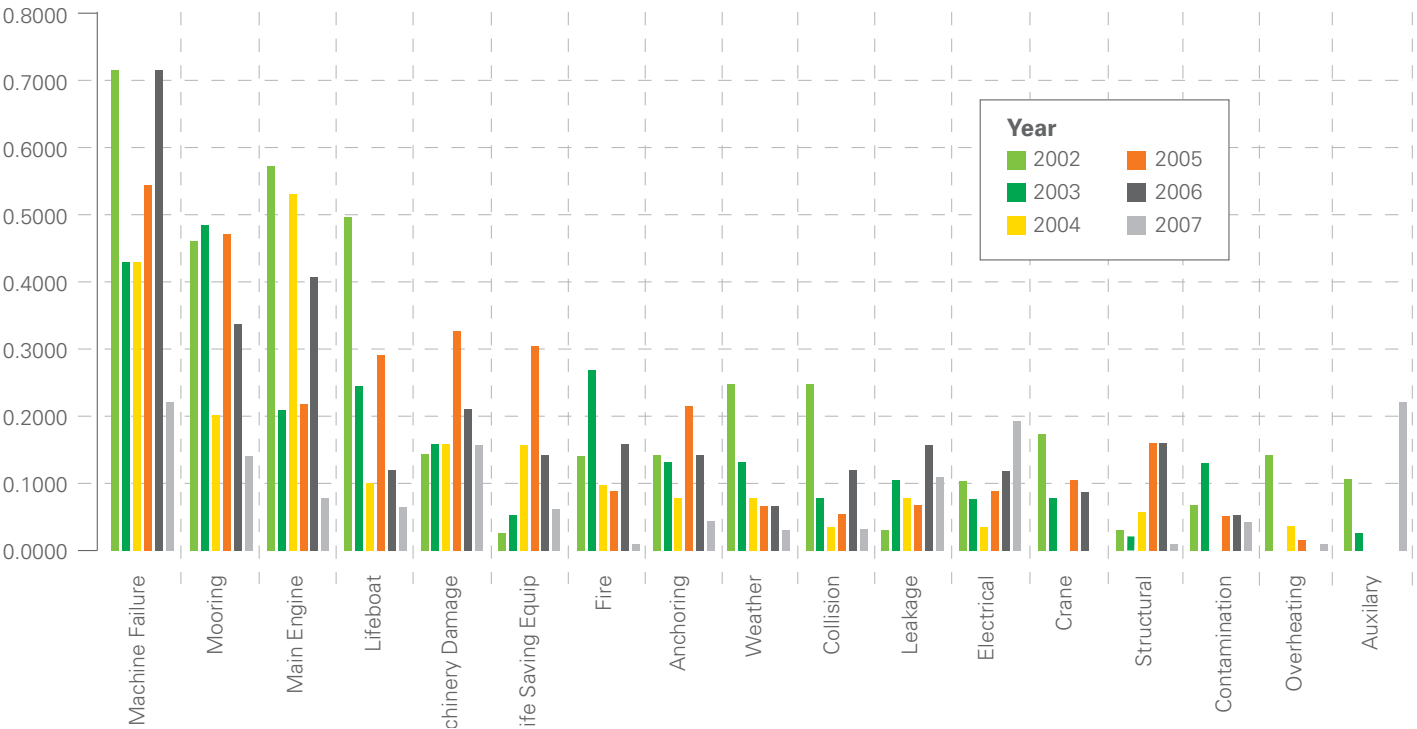
Recordable Injury Frequency (RIF): The frequency rate for recordable injuries.

Near Misses 2000 - 2007



Property Loss & Equipment Damage by System 2002 - 2007

Average No. of property and equipment damage incidents by effect/system 2002 -07



The Flag Safety Special

Milestones

The Leadership

Everyone has a role in BP Shipping's success and safety performance. Onshore the role is to provide support to the fleet so those at sea can manage the risk of delivering BP's cargoes safely, efficiently and on time.

To achieve this safely the Leadership Team of BP Shipping is committed to:

- Providing the resources and manpower to achieve our stated commitments.
- Communicating our expectations clearly.
- Seeking out bad news so that we can learn from our failures.
- Welcoming new ideas wherever they originate.
- Reinforcing the "Boots on Deck" programme.
- Reviewing all major incidents, HiPos and level A & B Near Miss incidents.
- Tracking findings and recommendations and communicating them to the organization in a timely manner so that mistakes/root causes are not repeated.

- Providing the resources and support to the Superintendents so they can succeed as Safety Leaders within the organization.

Another commitment is for the Leadership Team to hold quarterly safety meetings to review progress and performance. In addition we will determine the appropriate time to carry out a Safety Culture Assessment of the business.

Safety Leadership Assessments for all Extended Leadership Team members have now been carried out and are being evaluated.

It is also part of the Leadership Team's "offer" that it will carry out a review of the administrative burden being placed on ships and identify appropriate options to manage this burden.



BP Shipping

Our Leadership Team's Commitment to Safety



Given that the BP group has chosen to participate in the global marine and shipping industry, BP Shipping's Leadership Team are totally committed to making the working environment as safe for all their colleagues as possible.

To this end, we commit to creating a work environment where:

Rules - BP Shipping has fit for purpose and effectively communicated Processes and Procedures that minimise the risk of failure and protect every individual as they carry out their roles and responsibilities.

Competence - Everyone working in BP Shipping has open access to the necessary knowledge, learning and training to be able to fulfil their roles safely.

Individual Accountability - In the implementation of the above, all individuals in BP Shipping should feel empowered to protect themselves and their colleagues by not carrying out or ceasing with any activity that they feel to be unsafe.

Consequences - Anyone in BP Shipping found behaving contrary to these expectations will face consequences that could possibly lead to the cessation of their employment.

As we strive to make the above a reality, we seek to lead the industry in the setting of new and continuously improving safety standards, both in terms of the equipment we operate and the environment we operate in. In doing such, we will not differentiate between employees of BP Shipping and contractors working on behalf of BP Shipping.

David Baldry

John Ridgway

Kate Lovett

Simon Lisiecki

David Williamson

Steve Paterson

Adrian Howard

Tim Reading

Enys Dan

Andrew Blakeman



Milestones *(continued)*



Making the space for Safety

Martin Shaw VP HSSE

I am delighted to be able to contribute to this special safety edition of the Flag. It gives me an opportunity to introduce myself, share some of my thoughts and ask you for your help in shaping the future HSSE agenda in BP Shipping.



Milestones (continued)

First of all, an introduction to those of you I do not already know. I had the great pleasure of running what was known as 'Trading Tanker Team' from 1999 to 2001 and prior to that Ship Team One. TTT was the oil tanker fleet and at that time consisted of 18 operated vessels some as old as 27 years of age. The P class were just arriving. I think I can honestly say that was one of the most challenging and enjoyable periods of my career.

Since then I have worked in commercial, buying an assortment of ships including tugs, barges offshore vessels etc and then latterly as a Regional Manager. I am now just finishing off the Group Marine Standard, which will provide the second leg of BP Shipping's role in the Group. We can now say we are genuinely accountable for 'Everything that Floats' in the BP Group. I should also add that, other than providing opportunities, the Group Marine Standard is not another problem coming in your direction.

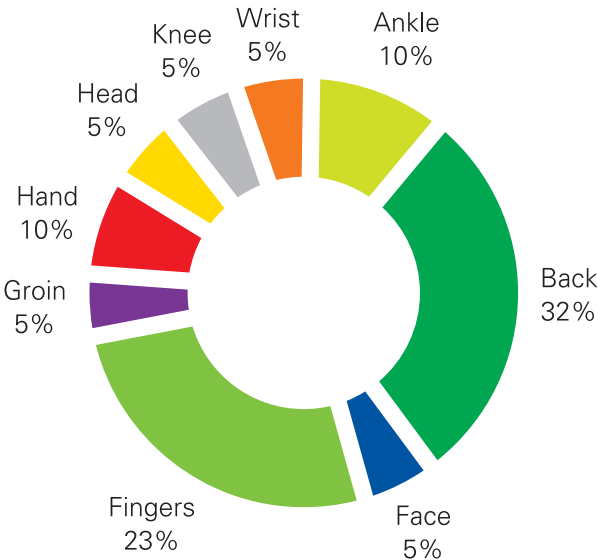
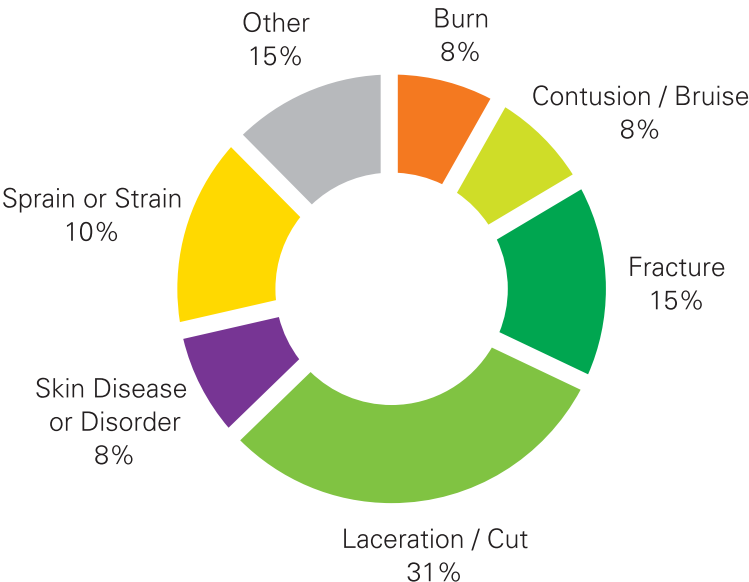
Further back in my history, when I first came ashore from the Fleet, I was the one and only Fleet Safety Officer. This was in 1986 where morale was a serious issue in the fleet. There are many things to be learned from those days. Indeed there are many things to be learned from the period before that when BP Shipping was seen as the leader and innovator in safety in the industry.

One of my major roles is to take the Safety Charter that the Leadership created and breath life into it. You will have read that document so I will not repeat it here and only pick up some thoughts.

The BP group is undergoing a major change as a result of the recent operational incidents. A great amount of documentation is coming from the group to help us improve our operations. There is great value in the collective wisdom of the BP group. Some twenty-five years ago. BP Shipping was one of the leaders in introducing such things as Permits to Work and Planned Maintenance systems to the marine industry. That came from the collective wisdom of the BP group. We need that wisdom, but we need to get it in a usable and accessible form that does not overload you.

// I believe we should learn from wherever we can. From other parts of the Group, from other shipping companies, from other industries and, indeed, from our own past. //

Injuries - 2006



Milestones (continued)



Time, or the lack of it, is often a factor in an incident. This translates into pressure which can invite us to cut corners. I have doubtless bored many of you with stories of my hobby, flying. There is a condition that affects pilots called 'Get-home-itis'. This is a pressure you feel to get home at all and any cost. It may be driven by a need to do something at home or to go to work the next day for a planned meeting. It can drive you take off into marginal weather conditions and run the risk of flying into something solid because you cannot see it. Why do I mention this? Because it's about how you deal with a situation. You have to examine the pressure and decide whether it is real or imagined. It always feels real. So if you are doing something and you feel pressure to cut corners, ask yourself what is causing the pressure, whether it is real and what you can do about it. Make the space for safety.

"At BP Shipping we have a safety culture that is envied everywhere."

We also need to be self-aware. What are the things you need to do the job safely? How do you get access to the knowledge you need to do the job? We talk about knowledge but to me it's only knowledge if it's in your head and you can make use of it. So we need to think about knowledge very carefully. I have no idea at this stage how we achieve that, but it's not something you should be pressured by. This is something we in the office have to deal with on your behalf.

Another strand of the safety charter is Accident Investigation. Bob Fleming is in the process of setting up this new team. We are already recruiting the first accident investigators. I am convinced that Bob's boundless enthusiasm and experience will create something special here and give us more knowledge to use.

I believe we should learn from wherever we can. From other parts of the BP group, from other shipping companies, from other industries and, indeed, from our own past. I am not expecting a sudden revelation blinding us with its genius. It's more about taking all the best ideas and building them into something that helps us. How do we make safety easier is one of my other questions because it seems like hard work.

I have to stress that this is all about evolution. At BP Shipping we have a safety culture that is envied everywhere. We have the Boots on Deck programme. There is also a lot of very good documentation. Together have served us well and will continue to serve us well into the future.

But for evolution to work we need your help. The seeds of evolution rest in many places and especially in the Fleet. If you have thoughts about safety, share them. It is your choice to send such messages, so please do not take this as an imposition or a requirement that adds to your workload. Meantime I will give some thought as to how we get your input as we develop the Safety Charter without creating more pressure.

I hope, with Dave Williamson's permission, to get out to the ships soon and look forward to meeting some of you and working with all of you in the future.

I hope this safety edition of The Flag is of help to you. And always keep this in mind - 'Make Space for Safety.'

Martin Shaw VP HSSE

Milestones (continued)



SafetyMoment

"This is a very emotional memory for me – it certainly changed my life. In 1991, whilst in command of a large LPG vessel anchoring off Khor Fakkan and following a lengthy dry docking, we had to replace the wrongly-fitted Teflon sleeves on the coupling of the extended cargo pump spindles within the cargo line stake. A lengthy process, involving two shifts working inside the cargo tank.

A fire alarm sounded and I rushed to the bridge where I was told that there had been a gas escape from tank hatch no. 2. Two men (one a visiting Superintendent) were inside the tank. Then one came out shouting that the Superintendent was still down. We isolated the gas source but the tank atmosphere was still full of gas. The Chief Officer was supposed to lead the tank search party but had an immediate nervous breakdown which shook everyone's confidence, including mine. As no one else volunteered to lead the party, I agreed with the Chief Engineer that he would take over command and I would go down the tank.

Supported by two of the strongest crew members, we got the Superintendent out – he was unconscious. I was last out, and as I climbed the ladders just before the top I ran out of air and started to fall backward – the LPG tank was nearly 60 feet deep.

As I was struggling to make it, the Chief Engineer and one of the crew managed to get hold of me and pull me on to the main deck.

All the praise I received afterwards never made me forgive myself for taking such a risk. I had the compensation of seeing a man who was also a friend walking about safely afterwards. But my misjudgement, particularly in giving the rescued man a bit of my air (which led to me running out of air), nearly cost me my life. I recall visualising my family and young kids as I was falling.

I was exceptionally lucky – not least to have delegated my responsibility and left my life in the hands of a man who I trusted a great deal. I was a young Master, and over enthusiastic, and I rushed into action without due regard for my responsibility towards my own family. Never take a decision without proper risk assessment – regardless of the nature of the emergency."

Capt. Gamal Fekry

Milestones (continued)

Moving safety forward:

What we've been doing

1: "6 point plan"

As explained in the previous section, we have put in place a comprehensive action plan to implement those aspects of the BP group "6 Point Plan" relevant to BP Shipping.

2: Reorganization

We announced a reorganization in May this year to better serve this growing organization and to meet the needs of our Safety Agenda. This reorganization also identified a need for additional staff.

The establishment of BP Marine Services (Singapore) Pte. Ltd. in Singapore is one of the key building blocks in terms of managing our sea staff more inclusively and effectively. This change will ensure a better trained workforce, in-tune with the BP Shipping agenda and safety culture.

3: Audit & action item status report

A Compliance Manager (Glenn Sampy) has been appointed to champion and assure BP Shipping compliance with existing regulations and with BP group standards and policies that apply to us. As such, this job is related to process safety and forms an important part of creating a strong safety culture.

A process is now in place using "Tr@ction" to record and monitor the progress of actions arising from safety-related audits of BP Shipping. This provides a highly visible platform, incorporating quarterly reporting to the BP Shipping Leadership team, to verify that we are dealing effectively with risks identified by audits by taking prompt and targeted actions.

In addition, "Project Emerald" (part of the "6 Point Plan") is targeting improved compliance with HSSE rules and regulations. BP Shipping's implementation of "Project Emerald" is being designed to make it as simple as possible to operate. It uses outputs from existing audits and inspections while maintaining verifiable compliance in accordance with the BP group objectives.

Continued >

Milestones (continued)

4: Incident Investigations

Last year BP Shipping conducted and reported on 36 RCA investigations requiring well in excess of 7,000 man hours to complete. With our current size it is necessary to develop a full time Incident Management Team to conduct investigations and administer and write-up reports in a timely manner.

We have now set up an investigation team led by Captain Bob Fleming. It will make use of appropriate professionals within the organisation and share resources from the BP group such as Master Root Cause Specialists and a Behavioural Scientist.

5: HSSE Performance and trend analysis

The gathering and analysis of all HSSE data from within BP Shipping is now the responsibility of FC&A (Financial Control & Accounting). It is tasked with ensuring that all data is reported consistently and has a single source. Cross industry benchmarking initiatives are being encouraged to better understand our relative performance.

6: Hazardous equipment

As per the *British Mallard* incident report, we are carrying out a review of equipment onboard our vessels to classify anything that might pose a significant hazard but has not hitherto been identified.



7: Elevators

Four elevators are back in service after the original manufacturer or an authorised agent attended the vessels and confirmed that all equipment was operating correctly. Elevators on our remaining vessels will be reinstated after manufacturer visits confirm they are fully operational. A fleetwide standard for a ship staff inspection programme has been put in hand to supplement regular manufacturer-approved "thorough" inspections. It will be implemented as a mainstay of our maintenance regime for all elevators.

8: Fire retardant clothing

We have completed a trial of inherently flame-retardant clothing on a cross section of the fleet and have identified a material to become the BP Shipping standard. Agreement on physical specification for the new fleet standard boiler suits is in hand and will form part of the co-ordinated suite of protective clothing to be supplied across the fleet. This suite will comprise under garments, boiler suits, wet weather clothing, cold weather clothing and Arctic clothing – all being produced from inherently fire retardant materials. Details of the co-ordinated suite of protective clothing available to all personnel – both afloat and ashore – will be promulgated formally in the near future.

9: Communications

This publication, and a monthly Safety Newsletter which will be included in each issue of *The Flag*, are two new communications about safety from our HSSE team. A more detailed HSSE report is being developed by the HSSE team for review by the Leadership Team at its quarterly meetings.

10: Safety training improvements

During 2007 the HSSE team will begin work on developing and delivering comprehensive safety training improvements. A safety action plan will be launched with the focus on training. It will include:

- A "Back to Basics" Safety Training Programme that includes BP's Golden Rules of Safety, Safety Supervisor Skills and Safety Leadership. The programme has already been rolled out through ESM in India. Paul Manzi (BP Shipping Fleet Safety Advisor) has drawn up training modules for this programme and assessed them with the FSTOs. They are now being evaluated.
- An analysis of employee competency gaps. This has begun. Based on what is uncovered, demonstrable safety competence will become a condition of employment with BP Shipping.
- A revised and enhanced Hazard Identification Programme will start in 3Q 2007.
- An Induction Programme to instil BP's HSSE values into new arrivals whatever their level in the organization.

Milestones (continued)

What you can do!

Comply with procedures and processes:

They may often seem pointless. And you may have done the job a hundred times before and be sure you know how to do it again. But they are there for a very good reason. Never fall into the trap of assuming anything – least of all, that everyone is as familiar as you are with a task.

Always make use of PPE:

Another simple commitment. Yet in the past year we have had instances of seafarers wearing domestic “Marigold” washing-up gloves instead of chemical resistant gloves; not bothering to put on a helmet or safety glasses; and wearing safety shoes without laces.

Turn off your mobile/cell phone:

In January an auditor observed and challenged a harbour-based contractor engaged in bunkering operations whose mobile phone rang whilst he was working on the bunkering of a BP Shipping vessel. This was a direct violation of the vessel's basic safety rules. Live electrical equipment can cause an explosion on board a ship.

Turn off your mobile/cell phone when driving: In many countries it is illegal to use a mobile/cell phone when driving. It is always a distraction. If driving on BP business, regardless of who owns the vehicle, it is a breach of the Driving Standard to use a mobile/cell phone.

Take ownership of work being done on your vessel:

To give some examples - If you see an electrical contractor proceeding on to your ship without an induction briefing, it is your responsibility to challenge him. The same applies if you see someone working at height without the appropriate personal protection equipment or if you see a person working on electrical equipment that has not been isolated.

Keep a complete daily work plan:

This document is a real friend of better safety performance. Well documented and diligently maintained, it can provide the proof that all hazards and risks were considered before any work was conducted, protect your future employment and guard against a loss of ticket.

Report incidents in a timely, correct manner:

This allows us to establish the facts and make effective use of the information and so guard against any future incidents.

Share safety information:

Lessons Learned conclusions from safety incidents should be shared on a routine basis across all levels in BP Shipping. One idea: vessels could develop processes to ensure that all officers sign-off on Lessons Learned one-pagers.



Milestones (continued)

Future Safety Initiatives

- We are considering the development of a marine training academy in the UK
- We are considering outfitting a future new build (or retrofitting an existing vessel) as a training ship
- We are discussing making safety competence a condition of employment
- Cross industry benchmarking initiatives are being encouraged to better understand our relative HSSE performance.

A Final SafetyMoment

"I was 19, on my second ship. We got anchorage at Fujairah. The Captain announced boat drill. A lifeboat was lowered into the water while picking up manually...and it hit me. I don't remember what happened, but soon I was airlifted to hospital where I regained consciousness. I had ruptured my spleen and broken four ribs. It took me three months to recover. On reflection I thought 'This has happened to me. I won't let it happen to others once I become a Captain.'"

Capt. Anil Kumar Singh

A yellow rectangular caution sign is shown, held in place by black straps. At the top is a black triangle containing a large exclamation mark. Below this, the word "Caution" is written in bold black letters and underlined. The words "OIL ON" are printed in large, bold, black capital letters, and "BEACH" is printed in the same style below it. A large, thick red 'X' is superimposed over the entire sign, crossing out the warning.

Caution
OIL ON
BEACH

It Depends on You!