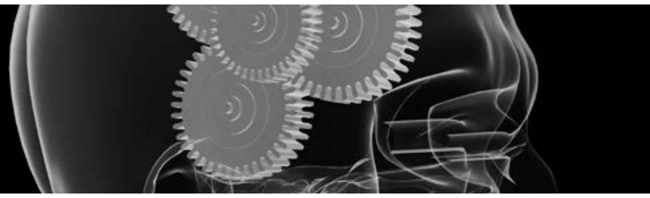
HUMAN FACTORS
How to take the next steps



CASE STUDY 1 - People will put up with what they're given…

What happened?

A driller was operating a top drive drilling unit. There was a stand of drill pipe clamped in the slips, and the top drive was raised and held on the brake. The driller saw a roughneck step into a hazardous area of the rig floor, and reached for the microphone to tell the roughneck to step back. As he did so he slightly released pressure on the brake. The top drive descended, bending the drill pipe which fortunately did not spring out. A 27kg pipe-guide fell 90 feet to the floor, narrowly avoiding the roughneck.

Investigation found that at the time the incident occurred, the driller had all four limbs utilised. To stop personnel from entering the drill floor, the driller had to lean towards the microphone, use his left knee to operate the talk-back system, use his right foot on the manual brake, whilst still trying to maintain control of the top-drive using the hydraulic brake. The brake did have a "dead-man" position that applied the brakes if the handle was released. However, simply easing off hand-pressure actually removed the brake. This was a counter-intuitive design. The system was known to be difficult to operate.

What human factors were involved?

What did people do intentionally?

People accepted the poor layout and controls, and got on with the job
As different items of equipment were added, controls were placed wherever they could be, without considering how they would have to be used together. Many different people knew about the problems in the dog-house, but a "can do" attitude meant that people just put up with poorly designed equipment and controls.

What did people do without meaning to?

The driller released hand-pressure on the brake control
If the brake-control had been entirely released the brake would have applied automatically. Unfortunately, a small release in hand-pressure was enough to remove the brake.

Keeping your arm steady during a task requires concentration and balance. Changing your position affects this fine-control. The movement towards the microphone reduced pressure on the brake and the top drive descended.

Barriers

- Human Factors in Design
- Risk Assessment
- Managing Human Failures

What can we learn from this incident?

- Older equipment has sometimes been subject to incremental change, without any thought to how changes will interact. Apply a good quality management of change process to each change, to identify these interactions before they become a problem.
- Our ability to carry out physical fine-control tasks is influenced by our body position and balance, and requires concentration. An ergonomist can advise on what people will be physically capable of in different situations.
- People will put up with poorly designed equipment and make the best of it. Designers can't foresee all situations. Speak up if there is equipment which is difficult to operate.
- Get experienced end-users involved in the design and commissioning of equipment.

CASE STUDY 2 - The best people DO make big mistakes…

What happened?

The most senior electrician on an installation was asked to perform a multi-point isolation on one of two gas turbines.

He took his permit, went to the switch-room and correctly identified the turbine to isolate. He was familiar with the switch-room and the layout of the turbine electrical systems. He began isolating the correct turbine.

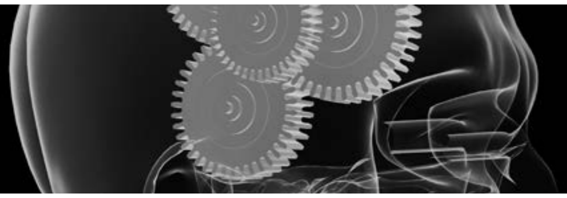
He then received a call on the public address (PA) system to come to the galley, which he ignored because the job he was working on was important. A second announcement called him urgently to the galley. The electrician went to the galley where he found the chef standing next to an open fridge complaining that the fuse had blown. Annoyed that the chef had interrupted an important job with one that could have waited, the electrician replaced the fuse and then returned to the worksite.

He completed the remaining isolation points, but on the wrong turbine. The error was discovered days later when the electrician had left the installation. When he was told of the mistake he immediately offered his resignation, which was not accepted. An investigation found that the distraction during an important job had led to the error, which in this case was discovered before any harm was caused.

What human factors were involved?	Barriers
What did people do intentionally? Intentional behaviours were not the main cause of this incident.	
What did people do without meaning to? **The electrician applied the isolation to the wrong machine** The electrician made an error - he performed the right action (applying isolations) on the wrong equipment. This was made more likely to happen because he was distracted during a complex job. Becoming angry at being called away may also have contributed to the error.	• Safety Critical Communication • Managing Human Failure • Supervision

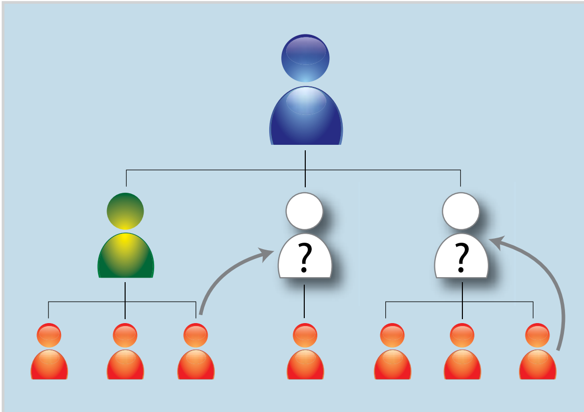
What can we learn from this incident?

- Performing the right action on the wrong piece of equipment is a common problem in our industry.
- The most experienced and competent personnel are sometimes more prone to error because they can do things automatically without thought.
- When we get distracted we may forget things, e.g. where we were in a sequence of steps or a procedure. This can lead to mistakes with serious consequences.
- You can prevent this type of incident by double-checking against the permit or asking another person to confirm that you are working on the right equipment. When the job's complete, have it independently checked to detect errors.
- Supervisors can help by recognising those jobs which could have serious consequences if someone makes a mistake. Minimise distraction for those carrying out complex or critical tasks. Encourage people to have their work checked for errors.



CASE STUDY 3 - Managers are human too…

What happened?



After going through a difficult downsizing a company decided to restrict recruitment and personnel moves, in an attempt to avoid painful redundancies in the future.

At the time there was great demand for personnel in the oil and gas market. One installation lost a number of its operational leadership to another company. For a while the installation managed. It was able to maintain its minimum manning levels, and less experienced personnel were asked to step-up into leadership positions. The Offshore Installation Manager (OIM) and offshore engineer began micro-managing work on the installation.

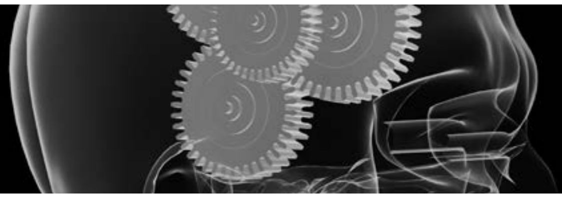
Unfortunately the recruitment restrictions introduced lengthy delays into the process of replacing personnel. Twelve months later the installation was still without replacements. When the attention of the OIM and engineer was distracted by another major issue, those standing-in could not maintain the safety standards.

A cluster of serious incidents (including a large gas release) led to an investigation which revealed the situation. The company accelerated replacement of the missing personnel.

What human factors were involved?	Barriers
What did people do intentionally? **Leaders made it difficult to recruit and move operations personnel** They did this with the best of intentions, to prevent people having to suffer the threat of redundancy in the future. Unfortunately this prevented the recruitment of new operations leaders to replace losses to other companies.	
Site managers made the best of the situation Whilst pursuing replacements, the OIM and engineer found a way to work through the problem by increasing the time they spent on site supervising and coaching.	• Organisational Change • Staffing Levels & Workload
What did people do without meaning to? **Stand-ins didn't have the experience and skills to maintain standards** Often we take technically gifted people and promote them into a leadership position. However, the two roles often require very different skills. It's even harder for stand-ins who are in the role only temporarily, and may still feel a member of the team they are having to supervise. In this case temporary stand-ins could probably have been adequately supported over a short period of time, but this became difficult over the longer period.	• Leadership • Supervision

What can we learn from this incident?

- The resourcing of the right people to your worksites is essential. There should be sufficient flexibility to allow your assets to have the right people at the right time.
- Managers and leaders are human too. It is difficult to see all the potential consequences of a decision or change.
- Equally, managers and leaders should be cautious of making blanket rules or decisions.
- Temporary personnel changes need to be monitored closely. Stand-ins are likely to require coaching and mentoring. The effect on supervisors providing this additional supervision also needs to be considered. Workload or job demands may need to be reduced, or more staff provided.



CASE STUDY 4 - Right job, wrong equipment…

What happened?

A work party unbolted the wrong valve on a flare line causing a large gas release.

Relief valves were being removed for recertification during a shutdown. Normally a “breaking-containment” permit would have been issued, but because the plant was hydrocarbon-free, this rule was relaxed, and a cold-work permit was issued for the task.

The recertification programme over-ran, and it was decided to complete the maintenance of some valves after the plant was back in production. However the rule requiring a breaking-containment permit, was not reinstated. The workscope was also handed over from project to operations leading to uncertainty of ownership and responsibilities.

The permit listed four valves. When the work team went to the site they found scaffolding erected next to relief valve PSV1068. They believed this to be the correct valve. Unfortunately it was not - they were supposed to be removing PSV1066 which was on the deck above.

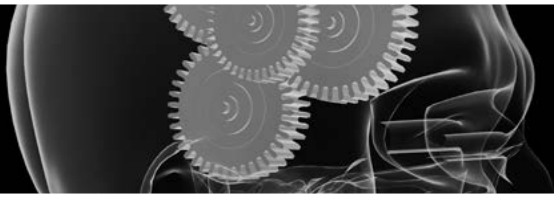
They attempted to remove the bolts from the live-side of the valve, but the high pressure in the vessel prevented the bolts from releasing. Instead they removed all of the bolts from the flare-side of the flange. Gas was released as they split the two halves of the flange. They tried to remake the flange but could not as the valve had become misaligned with the pipe.

The control room was informed of the gas leak and several gas alarms triggered. A full plant blowdown was initiated by the control room operator. Several tonnes of gas were released from the open flange which, had an ignition source been present, would have generated a serious explosion.

What human factors were involved?	Barriers
What did people do intentionally? **The permit rules had been relaxed and not reinstated** During the shutdown the rule requiring a breaking-containment permit was relaxed. It was not reinstated when the shutdown was complete.	
Change of responsibility led to uncertainties of ownership Uncertainty existed around who was responsible for the relief valve work post-shutdown i.e. production or maintenance supervisor.	• Procedures • Safety Critical Communication
What did people do without meaning to? **The work party selected the wrong valve** The permit stated that all the valves were on the same deck. The scaffolding access had been erected next to this valve. Furthermore, the valve tag was similar, and difficult to read. This was enough to suggest to the work party that they were working on the right valve.	• Maintenance, Inspection & Testing • Managing Human Failure • Supervision

What can we learn from this incident?

- Breaking containment on hydrocarbon systems is a high risk activity, involving people making judgements. Simple errors, assumptions or misjudgements can have disastrous consequences. Checking can catch errors.
- When breaking containment, you must confirm that you are working on the right equipment. You should also have a way of checking that the right steps have been taken before opening up the hydrocarbon system. When identifying equipment - walk - point - check!
- If something is not as you expected, step back and ask “why?”. The difficulty in removing the live-side bolts should have indicated that something was wrong. Applying basic principles in breaking bolted joints could have recovered this situation.
- Changing conditions, scopes of work and responsibilities must be managed to ensure responsibilities and ownership are clear at all times.



CASE STUDY 5 - Assumptions aren't always right...

What happened?

The work-team were using a high pressure water jet cutting system to cut redundant steelwork and pipework. The job was additional work that had been added to the scope after the team had arrived at the platform. The work-pack made only a general reference to removing equipment in the area. The team were instructed to "cut all material in the area" and the toolbox talk did not indicate which items should be cut or left. Various pieces of steelwork and pipe were marked with red-and-white tape.

The team began cutting steelwork and pipes away from the deck-plate. Shortly after cutting a pipe an oily smell was noticed and the team stopped work. The area authority confirmed that they had cut through a live drain line.

In the absence of any other indication, the team had assumed that the red-and-white tape marked the lines and steel which needed to be cut. In fact it marked trip hazards on the worksite.

What human factors were involved?

What did people do intentionally?

The team were asked to do work which was not in the original scope
The work was not in the original scope so had not been properly planned. Items of equipment to be cut were not clearly identified. There was no management of change.

The supervision did not communicate the scope and hazards properly
The toolbox talk didn't discuss the items to be cut, or point out the hazards from the live lines in the area.

What did people do without meaning to?

The team thought the red-and-white tape marked the items to be cut
Having been given the instruction to cut everything in the area, the team presumed that red-and-white tape marked the items to be cut.

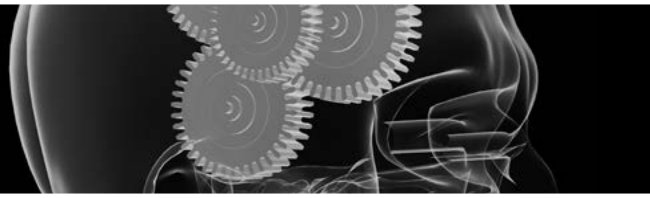
Barriers

- Safety Critical Communication
- Procedures
- Risk Assessment

- Managing Human Failure

What can we learn from this incident?

- The operations team assumed people would understand that red-and-white tape marked trip hazards. This wasn't confirmed with the workparty.
- When we make decisions we interpret the information available to us. Our interpretation is influenced by what has happened before, and what we expect to happen this time. This sometimes leads to incorrect conclusions.
- A clear work-pack is a good start, and an effective tool-box talk helps to get everybody clear on what needs to be done. Talk about the job at the worksite. Walk, point and mark the plant to be worked on. Those doing a job should be able to explain the job and their role in it.
- Late changes and additions often lead to incidents - that's why management of change processes are important. Those raising the change need to think carefully about the possible consequences, and work-teams should challenge work that comes in without good quality work-packs.



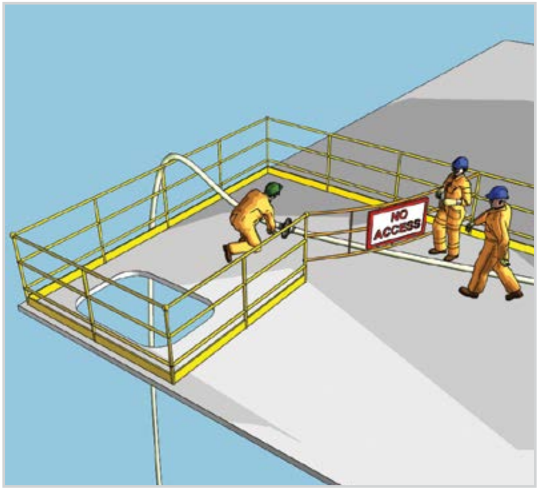
CASE STUDY 6 - Knowing that a hazard is there DOESN'T always protect you…Fact.

What happened?

During installation of a temporary piping system an employee sustained serious injuries when he stepped through an opening in the deck and fell 35 feet to the deck below. The deck opening was fully enclosed by a scaffolding barrier at the time of the accident.

A new drilling service team were working on the platform. It was not clear whether operations or drilling were responsible for monitoring the work. Consequently no-one checked what was happening at the work-site. It later emerged that the team were regularly violating rules and procedures.

A supervisor was preparing light-weight plastic pipe to clean up a spill. He needed help to run the pipe across the barriered area. The employee crossed the scaffolding barrier with the supervisor's knowledge. As the work proceeded the employee gradually moved closer to the opening. Whilst the employee was moving the pipe he took a step backwards and fell through the opening.



What human factors were involved?

What did people do intentionally?

The supervisor allowed him to cross the barrier
Within this team barriers may have been crossed routinely without any comment from supervisors.

The employee crossed the barrier
The supervisor was involved in the job and asked the employee to help. When the boss asks you to do something people may not even think to say "no".

What did people do without meaning to?

The employee stepped back into the opening
The employee knew the opening was there but believed he could avoid it. When his attention became focused on the job he stopped thinking about the hazard from the opening. The brain ignores information which is "irrelevant" to the immediate task, so it can concentrate mental resources on the job.

Barriers

- Human Factors in Design

- Contractors
- Risk Assessment

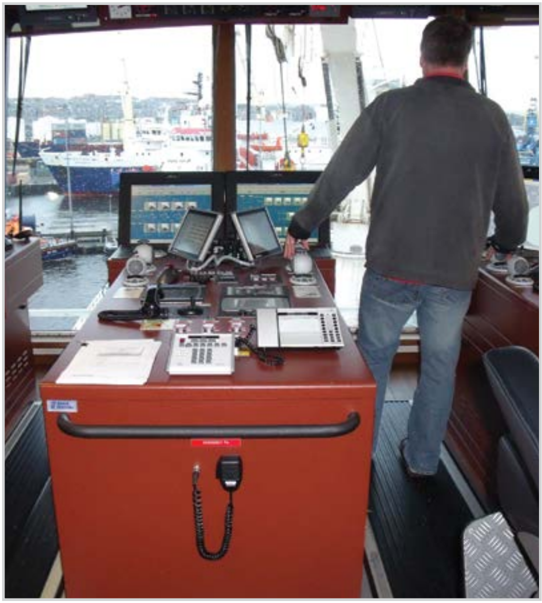
- Leadership
- Supervision
- Managing Human Failure

What can we learn from this incident?

- People falling through openings that they "know" about is a common and often fatal incident.
- Paying very close attention to one thing means we pay less attention to other things - like nearby hazards. Don't rely on people "paying attention" to prevent a serious hazard.
- We are all influenced by the behaviours of our managers, supervisors and team mates. Leaders and supervisors that allow unsafe actions or conditions send a strong message to others that this is acceptable.
- A worksite may have the best safety culture in the world, but you can't rely on that culture "rubbing off" on a new team. Keep an eye on new teams to verify that your high standards are being adopted.

CASE STUDY 7 - Controls don't always do what you expect them to do…

What happened?



A new supply vessel was being delivered from its manufacturing shipyard in China to the North Sea. On its voyage across the ocean the crew discovered a quirk in the control system. Under manual control the ship's thrusters could be controlled using a joystick. However, the joystick had been configured to apply the thrusters in the direction that the joystick was pushed. This meant that if the joystick was pushed right, the thrusters were applied to the right, and the boat moved to the left. If the joystick was pushed left, the thrusters were applied to the left, and the boat moved to the right. Having discovered this, the crew decided this was acceptable and continued to use this control on several occasions throughout the voyage.

The ship was working off a fixed installation when it struck the jacket at some speed. The vessel had started to move towards the installation and the Master tried to move the vessel away by moving the joystick away from the vessel. Unfortunately this applied thrust in the opposite direction, accelerating the ship into the installation. The ship struck the installation leg, but no damage was caused.

What human factors were involved?

What did people do intentionally?

The crew accepted the non-intuitive controls
Although the joystick didn't behave as they expected, they believed that they would get used to moving it in the opposite direction and put up with it. This should also have been detected in acceptance trials.

What did people do without meaning to?

The Master pushed the joystick in the "natural" direction
When the Master was focused on maintaining the ship on station he automatically pushed the joystick in the direction that "made sense" to him.

Barriers

- Human Factors in Design
- Risk Assessment
- Managing Human Failures

What can we learn from this incident?

- Well-designed controls should "map" onto the things they control. For instance, some cooking stoves have four rings controlled by a line of switches down one side. Others have the switches positioned in the same pattern as the rings so that you can easily see which switch operates each ring.
- Controls should make "natural sense". If you want it to go left, push the joystick left. In this case the joystick control did not map onto the direction that people would normally expect the control to take them.
- Operator interfaces are often the last things to be installed, and some suppliers have been known to cut corners in order to meet delivery deadlines. Clients should specify requirements for well-designed, usable operator controls in the contract, and ensure these are met in acceptance tests.
- Don't put up with non-intuitive controls, change them and apply management of change.

CASE STUDY 8 - Close-enough procedures aren't close enough...

What happened?

Burning fluids ran down the outside of the lit flare stack after a knock-out drum filled with crude oil.

While preparing for a shutdown, a drain valve was opened to depressurise a meter skid. The operator didn't realise that the meter skid was still connected to the process via an open skid discharge valve which he should have isolated. Crude oil flowed into the skid though the open drain valve and into the flare line. It overflowed the flare knock-out drum and passed on into the lit flare.

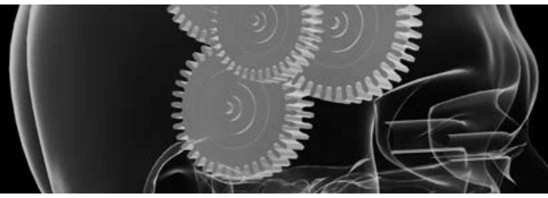
There was no procedure for draining the skid so the supervisor asked the operator to use a maintenance procedure. The steps required to isolate and drain the skid were in different parts of the document. The supervisor and operator discussed which parts of the procedure could be used. The operator misunderstood the instruction and started at the wrong step. He missed the step where the outlet valve was closed.

The high level trip on the drum should have shut down the process. Unfortunately the switch had been incorrectly calibrated, and allowed liquid into the flare where it was ignited.

What human factors were involved?	Barriers
What did people do intentionally? **The supervisor asked the operator to use a procedure which was not suited to the task** Although the procedure could be used to drain this skid, it included lots of other unnecessary steps which were likely to cause confusion.	
What did people do without meaning to? **The operator opened the vent valve without realising the outlet valve was open** The operator became confused about where to start the procedure, and picked the wrong place.	• Procedures • Safety Critical Communications
	• Training & Competence • Supervision

What can we learn from this incident?

- Procedures should be specific to the task being done.
- The sequence is vital, so anything which disrupts that sequence (such as jumping from one section to another) increases the chance of error.
- Where a procedure is not right, take time to amend it. Do a risk assessment to ensure that you know what hazards you need to control. Involve the people that have to carry out the job and technical staff who understand the process hazards that the procedure should address.
- Don't rely on automatic shutdowns to protect you. Safety systems can fail in all sorts of unpredictable ways - many associated with human error!

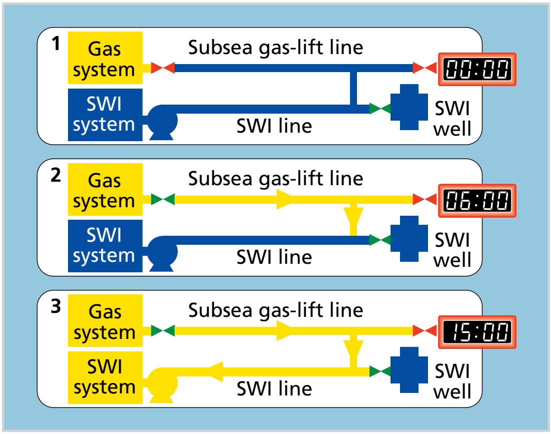


CASE STUDY 9 - Time to stop…

What happened?

An offshore installation suffered a gas release after gas from a Third Party subsea system was accidentally allowed into the Platform Seawater Injection system (SWI). The SWI pumps high pressure seawater into the reservoir and is not designed for hydrocarbon gas.

Engineers planned to empty a subsea gas-lift flowline that had been filled with water for maintenance (Figure 1). The plan was to push water out of the line and down a seawater injection well using production gas. It was calculated that 6 hours of gas-flow would be required to push the water into the SWI well at a well-head pressure of 35 barg (Figure 2).



A procedure was written by the Third Party, and provided shortly before the job was due to start. There was no time made available to review the procedure and it was considered "routine" as a similar type of operation had been done, previously. Buried in the middle of the procedure was a warning that the gas-flow should not exceed 6 hours.

Operators started the gas flow, but then it took 9 hours to get the 35 barg well-head pressure. Operators then continued flushing for a further 6 hours. Consequently, gas flowed for 15 hours rather than the 6 hours intended (Figure 3). After the water was flushed out a volume of gas flowed back into the seawater system and remained undetected for several weeks whilst the system was offline for maintenance.

On the day of the incident an operator opened a drain valve whilst restarting the SWI. Gas blew out of the drain, setting off gas alarms in the vicinity. The operator immediately shut the valve and the module was made safe.

What human factors were involved?

What did people do intentionally?

The procedure was not reviewed
The procedure was supplied at the last moment, and had not been reviewed by a competent person, even though this was an unusual operation. It hadn't been written with those doing the job, and no review or HAZOP (Hazard and Operability Study) was carried out.

The operators didn't stop the job and take time to get the procedure reviewed
They had not been involved in writing the procedure, and had no assurance that the procedure was correct. However the job had been planned for some time and they were reluctant to delay it.

What did people do without meaning to?

The operators did not detect the warning
Although the operators did use the procedure, their actions didn't reflect the engineers intention to only flow gas for 6 hours. The crucial information was buried in the text of the procedure.

Barriers

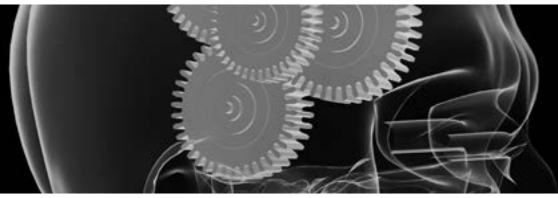
- Human Factors in Design

- Procedures
- Safety Critical Communications
- Contractor Interface

- Managing Human Failures

What can we learn from this incident?

- There have been several very serious incidents involving gas being accidentally routed into plant not designed to cope with it.
- Procedures need to be prepared in advance and reviewed by a competent person(s).
- Describe possible "abnormal situations" in procedures and clearly state what actions should be taken if they occur.
- Conventional hazard assessment techniques like HAZOP can detect errors made by designers and predict errors by operators. Specific HAZOP checklists may ask what would happen if a step is omitted or done out-of-order, or too late.
- Interfaces (communication and procedures), between Third Parties and the Operator, can be a weakness, recognise this and manage the associated risk.



CASE STUDY 10 - When sleep comes nothing can stop it…

What happened?

A drilling company was to drill its first High Pressure High Temperature (HPHT) well. A significant amount of new equipment had been fitted to the drill rig for HPHT service. The company found it hard to recruit tool pushers with HPHT experience in the UK as not much HPHT drilling had been done before in the North Sea. They were able to recruit one tool pusher experienced in HPHT equipment from the US and one from the UK with experience of the standard rig and UK procedures but without HPHT experience. The plan was for the one with HPHT experience to work as day tool pusher and the one without to work as night tool pusher.

Once drilling started it soon became clear that the only way they could work the equipment was for both to be on duty with one maintaining the drill operations while the other concentrated on the HPHT equipment. They came up with a plan that they would both work 20 hour shifts and take alternate 4 hour breaks. They managed this for three days before one fell asleep at a critical stage and they lost control of the well.

What human factors were involved?

What did people do intentionally?

The tool pushers worked longer shifts believing they could remain alert and in control of the situation
The tool pushers thought that the work was so hazardous and demanded so much concentration that it was bound to keep them awake. They underestimated the impact on their mental and physical capabilities. Relying on each other to stay awake was doomed to failure.

The tool pushers decided to continue with the work pattern even though they recognised they were getting very tired and may fall asleep.

What did people do without meaning to?

One of the tool pushers fell asleep
Nobody has conscious control over the point when they fall asleep.

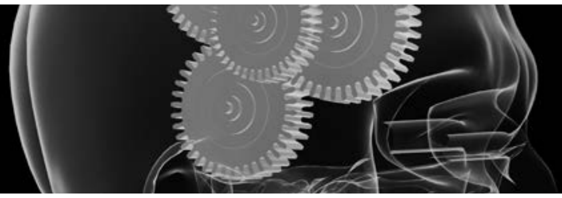
Barriers

- Risk Assessment
- Staffing Levels & Workload

- Fatigue
- Leadership

What can we learn from this incident?

- People aren't superhuman. Organisations and individuals need to understand how mental and physical limitations can impact on safe activities. Manning levels must be properly assessed to ensure safe operations. New equipment and processes may require a temporary over-manning and increased levels of supervision.
- We know that it is possible to fall asleep while driving, even though the consequences are severe. Often we push on despite the warning signs. Once the body decides to sleep we have very little conscious control. Falling asleep is not the only consequence of fatigue. Fatigue also reduces a person's mental capabilities and makes them more prone to making mistakes and poor decisions.
- If you are doing a safety critical job or task and are at risk of falling asleep – stop, get some help and get some rest.
- There is a lot of good advice on how much rest to get, how to improve the quality of sleep and how to assess working patterns for fatigue risk.



CASE STUDY 11 - Find a way to do it - by hook or by crook…

What happened?

Whilst replacing lifting "runway" beams, the willingness of a rigging crew to get the job done endangered their own lives.

A beam was being removed from the module roof by the rigging crew. A supervisor was inspecting the site and noticed that the chain blocks being used to lower the beam had been attached to the beam by using a technique known as "back-hooking" (i.e. wrapped around the beam and hooked back on itself). This was a technique prohibited on the site because there had been incidents when the hook had twisted and released the load. Operations were not being carried out according to the lifting plan for the job.

Work was stopped immediately and the load made safe. The supervisor highlighted that back-hooking was unacceptable practice and the work-party agreed. However, in their opinion, there was no other way to do the job. When they looked again at the job there were safer ways of completing the lift and these were written into a new lifting plan.

Had the hook released, one of the rigging crew could have been killed.

What human factors were involved?	Barriers
What did people do intentionally? **The work party decided to use a technique which was prohibited** When challenged, they realised that the technique was not safe, but believed it was the only way of getting the job done.	
What did people do without meaning to? Unintended behaviours were not the main cause of this situation.	• Risk Assessment • Procedures
	• Supervision • Managing Human Failures

What can we learn from this incident?

- We love to find a way to do the job we're given. Sometimes we will accept greater risk to achieve the goal.
- We often have to solve problems in our job. However, when we're about to do the job with the materials available to us, we often make unwise compromises - compromises we wouldn't make when we are planning the job.
- When we think about risks as a group, we can end up taking bigger risks than we would as an individual. This is called "groupthink". We reassure each other and give each other confidence to do something that we wouldn't do alone.
- When planning a job, assess the practical problems you will encounter and how you will deal with them. Test whether this is something that you would take responsibility for if you were doing it alone.

CASE STUDY 12 - Helpful guys get hurt…

What happened?

The hand of a member of the catering crew was badly damaged when it became trapped beneath a heavy steel plate.

An engineering contractor work party was working on fitting a new bed plate for an industrial spin drier in an installation's laundry. The team were lifting the heavy bed plate (weighing around 200kg) onto the six raised securing points. The work had been going on for two days, under a Work Permit. The catering crew were aware of the nature of the work and the need to take care in the vicinity.

One half of the plate was supported on stacked planks. The other half was being lowered onto the securing points by three of the work-party. The laundryman rushed forward to assist just as the plate was being lowered. His hand became trapped between the plate and the raised securing points. The crush amputated the laundryman's middle finger.

What human factors were involved?	Barriers
What did people do intentionally? **The laundryman rushed in to help** Although he wasn't part of the job and hadn't been involved in the risk assessment and preparation for the job, he rushed in to help without thought.	
What did people do without meaning to? **The laundryman placed his hand in a trap point** He was unaware that there were raised supports against which his hand would be trapped.	• Risk Assessment
	• Behavioural Safety • Supervision

What can we learn from this incident?

- We employ many good, enthusiastic and well-meaning people in our workplaces. People will rush in to help without a second thought. Lifting operations are particularly prone to this: something goes wrong, everyone takes a step back, but the novice steps forward.
- "Recognition-based problem solving" is a feature of human beings. We recognise something we think we can fix or help with and we go straight into action without any thought.
- Don't jump in to help and don't allow people to jump in and help. In this case a tape barrier may have been enough to stop the laundryman from getting involved.