Human factors: HSE issues major accident warning to offshore firms

Britain's offshore oil and gas installations are held to high regulatory standards, but human error can still lead to a major incident.

That's the message from the Health and Safety Executive (HSE), who are urging offshore companies to take a closer look at what's widely known in the sector as human factors.

HSE inspects human factors on offshore installations, with a particular focus on safety critical tasks.

Safety critical tasks have the potential to initiate or escalate a major accident on an installation.

HSE recently issued oil firm Apache with an enforcement notice after inspectors formed the opinion that the company failed to fully consider human factors as part of its plans to prevent a fire and explosion on its Forties Delta platform in the North Sea.

Mary Marshall, a principal specialist inspector at HSE, says it is necessary offshore firms like Apache identify safety critical tasks carried out on their offshore installations.

Mary said: "Offshore companies need to understand and evaluate where and how these safety critical tasks might be vulnerable to human error. Safety Critical Task Analysis (SCTA) is an established, structured process that will help companies demonstrate that these tasks can be carried out safely, reliably and that the risks are managed to as low as reasonably practicable. This will include consideration of the design of the equipment, details of the tasks and the factors which support task performance."

HSE has noted a number of offshore firms have launched SCTA programmes with varying degrees of success.

Common failings that HSE has identified with these SCTA programmes include a lack of sustained commitment and progress with the work, and inconsistencies in the quality of assessments.

HSE's inspection of its Forties Delta platform found the company had failed to take appropriate measures to prevent the uncontrolled release of flammable or explosive substances during main oil line pig launcher operations.

Apache currently has until 9 November to comply with the Improvement Notice. It has not appealed against the notice.

Notes to editors:

- 1. The Health and Safety Executive (HSE) is Britain's national regulator for workplace health and safety. We prevent work-related death, injury and ill health through regulatory actions that range from influencing behaviours across whole industry sectors through to targeted interventions on individual businesses. These activities are supported by globally recognised scientific expertise.
- 2. Further details on the latest HSE news releases is available.
- 3. The HSE Improvement Notice issued to Apache can be found here: Notices Served <a href="Enforcement notices public (hse.gov.uk)
- 4. Guidance for offshore companies on what to expect from a HSE inspection can be found here: The Offshore Management of Human Factors Inspection Guide (hse.gov.uk)

£240,000 fine for company after fall left man paralysed

A Cheshire-based electrical transmission company has been fined £240,000 after a man was left paralysed from the chest down after a fall at work.

Gavin Pugh, from Bangor in North Wales, was 35 at the time of the incident and employed as a linesman by Wood Transmission and Distribution Limited. He had been demolishing and replacing electricity pylons in East Staffordshire when he fell more than 30 feet on 6 April 2022.

Birmingham Magistrates Court was told how Mr Pugh and his colleagues began working on a pylon known as Tower AE11 in preparation for its demolition. They were unaware there had been previous work to loosen the bolts on the tower, known as "bolt cracking", undertaken by another team of linesmen. This work had not been risk assessed and there were no systems in place to effectively record and communicate what they had actually done.



Gavin Pugh fell more than 30 feet during work to demolish electricity pylons in East Staffordshire

In addition, the team that was sent to site that day was also under-staffed for the work being carried out. As the job progressed, Mr Pugh unknowingly attached his fall protection lanyard to a diagonal steel section that was only securely bolted in place at its uppermost fixing. As he moved around the tower, the steel section he was attached to dropped into a vertical position, causing his lanyard to fall loose, resulting in him falling to the ground. He spent six months in hospital and has been left unable to work as a result of his extensive injuries.

An investigation by the Health and Safety Executive (HSE) found that Wood Transmission and Distribution Limited failed to ensure that the work at height was properly planned, appropriately supervised, and carried out in a manner that was, so far as was reasonably practicable, safe. The company had not considered the work at height hierarchy as part of its planning and had not assessed the risks associated with bolt cracking. Furthermore, it had not adequately resourced the task in line with its own safety documentation, and had failed to put in place a process for transferring work between teams and ensuring safety critical information was recorded and communicated effectively.

On 12 April 2024, Wood Transmission and Distribution Limited, of Booths Park, Chelford Road in Knutsford pleaded guilty at Birmingham Magistrates Court to breaching regulation 4(1) of the Work at Height Regulation 2005. At a hearing on 17 July 2024 they were subsequently fined £240,000 and ordered to pay costs of £14,142.

HSE Inspector Robert Gidman said: "This tragic incident could have been prevented had Wood Transmission and Distribution Limited put in place adequate arrangements to protect its workers from harm.

"Proper assessment of the risks and consideration of work methods, adequate staffing, and clear procedures for transferring towers between teams could have enabled this work to go ahead without incident.

"Instead, because of the company's shortcomings, a worker has sadly and unnecessarily been left paralysed.

"Companies should be aware that HSE will not hesitate to take appropriate enforcement action against those that fall below the required standards."

Notes to editors:

- 1. <u>The Health and Safety Executive</u> (HSE) is Britain's national regulator for workplace health and safety. We are dedicated to protecting people and places, and helping everyone lead safer and healthier lives.
- 2. More information about the <u>legislation</u> referred to in this case is available.
- 3. Further details on the latest HSE news releases is available.
- 4. HSE does not pass sentences, set guidelines or collect any fines imposed. Relevant sentencing guidelines must be followed unless the court is satisfied that it would be contrary to the interests of justice to do so. The sentencing guidelines for health and safety offences can be found here.

Engineering firm fined after employee sustains serious injuries at HS2 site

An engineering firm has been fined after an employee suffered a fractured skull, hip, jaw and pelvis, while working at a HS2 construction site in Hertfordshire.

The man, employed as a mechanical engineer by EMC Elite Engineering Services Ltd, had been repairing a conveyor at the site on Chalfont Lane, West Hyde when he fell 11 metres on 20 November 2022.

Stair treads had been removed in the conveyor's stairway to ensure it could be supported by a crane during the reparation work, resulting in a gap in the stairway.

The man, who was 57 at the time, fell through this gap and landed on the concrete floor below, sustaining a fractured pelvis, skull, hip, jaw and two broken wrists.

He spent two months in hospital following the incident, undergoing surgery requiring him to have six plates inserted into his face.

A Health and Safety Executive (HSE) investigation found that EMC Elite Engineering Services Ltd failed to ensure the work at height was properly planned, appropriately supervised, and carried out in a manner that was as safe as reasonably practicable.

The worker said in his victim personal statement: "The injuries I sustained have had a massive impact on my life and some of these will be permanent. The impact on my family relationships has been massive. My wife has become my carer.

"My own behaviours have changed. I am quicker to anger and get easily frustrated. I get very impatient too. My focus has been affected and I struggle to keep up with a task or maintain a conversation."

EMC Elite Engineering Services Ltd, of Heronsgate Trading Estate, Paycocke Road, Basildon, Essex pleaded guilty to breaching Regulation 4(1) of the Work at Height Regulations 2005. The company was fined £52,500 and ordered to pay £6,871.12 in costs at St Albans Magistrates' Court on 15 July 2024.

HSE inspector Martin Paren said: "This incident led to an employee suffering multiple injuries that will affect him for the rest of his life. If his employer had properly planned, instructed and supervised the work then this incident could have easily been prevented."

This prosecution was brought by HSE enforcement lawyer Sam Wells and supported by HSE paralegal officer Imogen Isaac.

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Company and director fined after worker fractures skull

A company and its director have been fined after an employee was struck by an object while manufacturing large steel cable drums for the offshore industry.

The man, who is now 54, had been working for Code-A-Weld (Great Yarmouth) Ltd when the incident happened on 19 November 2022. Although the company had manufactured steel drums previously they had never manufactured drums of this size — with these ones weighing in excess of seven tonnes.

However, during the process, the jacking set-up failed at the company's site in Harfreys Industrial Estate in Great Yarmouth which resulted in a catalogue of serious injuries including fractures to the man's face and skull, and him losing the sight in one eye.

He was airlifted to hospital, placed into an induced coma and spent just under three weeks in hospital whereby he needed facial reconstruction surgery.



Steel drum

A Health and Safety Executive (HSE) investigation found that Code-A-Weld (Great Yarmouth) Ltd failed to carry out a suitable and sufficient risk assessment; control risks from welding in confined spaces; and to provide the full training required.

The investigation also found that company director, David Fowler, failed to provide safe systems of work in relation to metal fabrication work, despite previous HSE interventions regarding failure to risk assess activities in the fabrication workshop.

Had the company put in place correct measures, such as suitable risk assessment, safe systems of work and planning for jacking activity, the incident could have been prevented.

HSE guidance can be found at: <u>Health and Safety in engineering workshops</u>.

Following a sentencing hearing at Chelmsford Magistrates' Court on 20 June

2024, DJ Williams issued their written judgment on 5 July:

- Code-A-Weld (Great Yarmouth) Ltd, of Harfreys Industrial Estate, Bessemer Way, Great Yarmouth, pleaded guilty to breaching Section 2(1) of the Health and Safety at Work etc. Act 1974. The company was fined £24,000 and ordered to pay £3,500 in costs.
- David Fowler, of Harfreys Industrial Estate, Bessemer Way, Great Yarmouth, pleaded guilty to breaching Section 37(1) of the Health and Safety at Work etc. Act 1974. He was fined £2,000 and ordered to pay £1,500 in costs.

HSE inspector Natalie Prince said: "Those in control of work have a responsibility to devise safe methods of working and to provide the necessary information, instruction and training to their workers in the safe system of working.

"If a suitable safe system of work had been in place prior to the incident, the life threatening injuries sustained by the employee could have been prevented."

This prosecution was brought by HSE enforcement lawyer Robert James.

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- 3. Further details on the latest <u>HSE news releases</u> is available.

Council fined as school technician loses finger

A local authority has been sentenced after a worker lost his finger while operating a machine.

Adi Soday, a technician at The Forest School in Horsham, lost his right index finger when it was sliced off by a circular bench saw on 13 June 2022.

The 29-year-old, who worked in the design and technology (DT) department, had been operating the saw to cut pieces of wood that were set to be used for a DT lesson.

While pushing one of the sheets of wood through the saw, Mr Soday, who was 27 at the time, felt a pain in his right index finger and immediately turned off the machine.

As he looked down, he saw his finger lying on the bench.



The machine being operated by Mr Soday

A Health and Safety Executive (HSE) investigation found West Sussex County Council, the local authority in charge of the school, failed to ensure Mr Soday was trained to use the bench circular saw. Mr Soday had used the saw many times but had not been trained on how to use it safely.

West Sussex County Council pleaded guilty to breaching Regulation 9 of the Provision and Use of Work Equipment Regulations 1998. The local authority was fined £16,000, ordered to pay £4,294.60 in costs and a victim surcharge of £190 at Brighton Magistrates' Court on 3 July 2024.

HSE inspector Russell Beckett said: "Workers must be trained properly when using high risk woodworking such as bench circular saws. This incident could have been prevented had West Sussex County Council provided Mr Soday with proper training."

This prosecution was brought by HSE enforcement lawyer Iain Jordan and supported by HSE paralegal officer Imogen Isaac.

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