Safety Alert

Reportable Injury – Lower Thames Crossing Ground Investigation Drilling Operations

Incident Overview

On the 21st Sept a drilling crew were drawing casing on Borehole location BH 15303 Package C Lower Thames Crossing. A drilling supervisor had visited the drill site in the afternoon and the extraction had been proceeding as planned.

Around 16:30 hrs the drilling crew were finding it difficult to break the last casing from the rotary head with the twin clamps slipping on the casing resulting in polishing. The Lead Driller (fully qualified but newly appointed to the role) suggested that a chain wrench be used to give extra mechanical purchase to the casing, the unplanned / unapproved method being to wrap the chain around the casing, lock the chain off to the wrench handle and wedge the handle against the rig mast above the safety cage in order to provide maximum torque and free up the casings.

Within this sequence of works the Support Operative raised concerns regarding the methodology being undertaken, identifying it as outside the safe system of works / operational process, asking if it were safe. The Lead Driller, acting as the senior member of staff, assured him that the process was safe and that he had undertaken it on numerous previous occasions.

Still unsure the Support Operative removed himself from the perceived hazardous area and stood 4.4m away from the front of the rotary rig.

As the rig engaged rotation, the torque of the rotation broke the chain away from the wrench handle almost immediately, whipping it around the casing and ejecting it towards the Support Operative striking him on the safety glasses. The impact of the 1kg 650mm long chain caused the Support Operative to stumble backwards and resulted in a facial fracture, whiplash and superficial cuts and grazes.

Following the incident, a post incident drug and alcohol test was performed on the drilling crew and the Lead Driller returned a non-negative test for cocaine.

Accident Causes

Mechanical Causes

- Installation of casing using full torque first gear (instead of second gear) resulting in tighter locking together of casings.
- Failure to maintain clamps with wire brush to remove swarf resulting is slippage.
- Applying an unapproved / unsafe practise.

Procedure Causes

- Failure to stop works when a challenge was made to an unsafe working method.
- Failure to escalate challenge to supervisor when challenge was disregarded and concern remained.
- Failure to follow change management process, obtaining approval and updating RAMS prior to implementing alternative working method.
- Failure to contact fitters to service clamps - clamps should always be able to break casing and where they can't it is a clamp malfunction.

Behavioural Safety Causes

- Self-imposed pressure to impress employer as Lead Driller having recently been promoted into the position.
- Actions implemented to cover up previous installation (time lost) errors.
- Lack of knowledge in clamp maintenance.

Safe Behaviour = Safe Performance

Contact your SHE Manager with questions or comments on this Safety Alert / Bulletin