

Date: 19<sup>th</sup> August 2014

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**Issue Number: TLP 023****Title:** London Bridge – Crushed hand from Piling (17<sup>th</sup> July 2014)For further information contact Sharon Fink, Health & Safety Manager, Network Rail at [sharon.fink@networkrail.co.uk](mailto:sharon.fink@networkrail.co.uk)**Overview of Event:**

During installation of minipiles under the archways using cased auger drilling techniques an operatives hand was trapped and crushed.

The drilling stage involves installing 28 x 1 metre sections of auger and the accompanying pile casings

The auger sections are lifted in place but when landed they are not automatically plumb which means the drive head Hexagonal drive does not line up with the head of the auger

The spannerman frequently has to intercede and manually manoeuvre the auger to aid alignment, this puts him in the danger zone

The rig operator lowered the drive head without confirming it was safe to do so and at that precise moment the spannerman's hand was located between the drive head and the top of the auger flight resulting in it being trapped.

**Diagram/Photo of event:****Underlying Causes:**

- Poor communication between the rig operator and the spannerman
- Complacency as a result of repetitive tasks, over confidence and poor perception of risk, particularly risk of crushing
- Poor housekeeping; previous arisings had not been removed resulting in poor underfoot conditions and elevated position of injured person
- Lack of training for piling operatives on the standard operating procedure, safe zones and use of hand signals particularly in noisy environments

**Actions Taken As a Result of Investigation:**

- Piling contractor re-engineered the drive head to increase gap and reduce entrapment risk
- WPP and Task Brief updated to reflect risk and controls and briefed to piling teams
- Storyboard developed and briefed to reflect correct operating procedure and hand signals required

**General Key Messages:**

- WPPs and Task briefings should capture key risks and controls of work tasks
- Operatives should be trained / competent for the tasks they are undertaking
- Clear communication arrangements should be in place for tasks especially in noisy environments
- Housekeeping of work areas should constantly be under review – works should stop if areas need to be tidied
- Supervisors / Foremen should be undertaking checks to make sure that tasks are being carried out as planned especially when they are repetitive in nature when complacency and over familiarity can occur