

The Thameslink Programme Issue Date: 14th December 2016 For Further Info Contact mike.netherton@networkrail.co.uk

Issue Number: TLP 067 Title: Tamper Cable Strikes

Overview of Event:

On the 12th of October a whilst tamping a new road in the Bermondsey Dive Under area a Tamper struck a buried live 750v traction supply cable. The cable was just under the ballast surface and was pierced by the tines as they were dropped within the ballast causing significant sparks and flame.

Following the first strike tamping recommenced on 14th October with all services surveyed and clearly marked. Additionally, following lessons learnt from the first incident, a Site Engineer walked the line with the Tamper Operator pointing out cables and adding further 'survey paint' to reinforce the position of services around the rails.

Tamping re-commenced but part way into the task the same cable was drawn back onto a sleeper by the tines and the insulation compromised leading to the cable burning out.

Immediate Cause:

- Tamper tines struck cables damaging sheathing due to visibility of their locations and markings not in line with agreed protocols

Underlying Causes:

- The presence of cross-track cables was not recorded as a site specific hazard within the Construction Risk Register and consequently did not feature in the Work Package Plan/Task Briefing
- Cable Management Sleepers had been installed but cables had not been dressed into 'cut outs'
- The Tamping crew failed to maintain an established safe system of work with regard to the avoidance of live cross-track cables whilst tamping took place
- The cable marking protocol used was different to the method the tamper crew were familiar with
- The Tamping Crew determined that appointing a 'spotter' was their preferred method of identifying cables

Actions Taken As a Result of Investigation:

- A review of the process used for hazard identification and communication as part of work planning
- Re-briefing and site audit of procedures relating to tamping around live cables
- Implementation of a 'Permit to Tamp' process
- Establish criteria that will determine the level Tamper Operator competency required to tamp in areas where cross track cables are present

General Key Messages:

- Site survey is essential to inform risk assessments, especially in areas where there are novel risks
- Risk mitigation and controls should be aligned and understood where different suppliers work together

Diagram/ Photo of event:



1st Cable Strike



2nd Cable Strike