Shared Learning

The Thameslink Programme

Issue Date: 20th April 2015 For further info contact sharon.fink@networkrail.co.uk

Issue Number: TLP031 **Title:** London Bridge Destabilised Wall (5th March 2015)

Overview of Event:

A demolition contractor was undertaking loading out activity when part of a wall de-stabilised. This occurred in an area where the team were removing demolition rubble which was being fed down through a mole hole from the station platforms above. A bobcat machine was being used to load out the rubble. It was the action of the rubble being pushed by the bobcat bucket against the unprotected infill brick wall that resulted in the destabilisation.
On the other side of the collapsed wall there was an electrical switch room containing cables and switch gear.

Underlying Causes:

- **Risk Assessment**: The Risk Review was undertaken 12 weeks prior and identified risks associated with the demolition activity. The risks associated with the adjacent switchroom were not adequately identified.
- **Design and Procedure**: There was insufficient mitigation by way of physical protection systems to protect the electrical equipment in the switchroom. The plyboard 'barrier' installed was inadequate and the warning sign was ineffective. The plyboard failed under a load it was not designed for.
- **Mitigation:** Aside from the failure to identify the risk, the other control measures necessary for the safe operation of the removal of the rubble from the mole hole area were suitable and sufficient and were being managed in accordance with the WPP and TBS. The exclusion zones were effective in preventing personnel from being exposed to the destabilised wall.
- **Risk Assessment**: The team were focussed on the protection of electrical systems at platform level and the diversion and protection of other electrical cables in and around the arch. This resulted in a rerouting of temporary power cables and the construction of protective hoarding. As a consequence of the attention on other risks, chiefly the cables in the immediate area, there was consequently an insufficient risk assessment of the risk associated with the switchroom.
- **Procedure:** There was no formal final check of the area prior to the work commencing to identify if there were any residual risks that needed addressing .
- **Engineering Assessment**: An engineering assessment of the wall was required to determine its strength and stability. Temporary works was not consulted as it should have been .
- **Organisational relationship**: There was reliance from the PC that the specialist sub-contractors had identified all the risks which they had not.
- **Post-incident**: The actions taken upon identifying the destabilised wall to make the area safe and report to the relevant people were reasonably timely and appropriate.

Actions Taken As a Result of Investigation:

- Risk review meetings will include a joint site visit (PC and sub contractor) where the rating is medium or high.
- To prevent damage to equipment, suitable barriers will be installed in confined areas to protect 'vulnerable services' such as cables / electrical equipment.
- The temporary works department will be consulted to make sure that structures likely to be loaded receive an adequate assessment.
- A pre-start assessment of the working environment will be undertaken to make sure the WPP / TBS is adequate.

General Key Messages:

- Joint site visits to confirm risks and controls are a good way of agreeing requirements for WPPs / TBS requirements
- Temporary works teams should be consulted where loading will be placed on structures
- Arrangements should be in place for informing NR TLP ODMs when there is potential for impact on operational railway

Diagram/ Photo of event: