

Shared Learning



Serious leg injury whilst manual handling

Issued to: **All line managers, Safety Professionals and accredited contractors**

Ref: NRL23-07

Date of issue: 15/11/2023

Location: Crewe High Output Operating Base

Contact: [Mark Farrow](#), Project Manager (HSE), SCO Capital Programmes

[Aonghus McGinn](#), Health & Safety Manager, SCO

Capital Programmes



Overview

On 23rd August 2023, two operatives were lifting and manoeuvring a cladding panel on a rooftop. One of them lost their grip and dropped the end they were holding. The panel fell onto their leg, cutting through their trousers, causing a deep laceration above their right knee.

The panel being lifted was 6.9m long, 1m wide, and weighed 71kg with bare metal edges on three sides.

The injured person was treated on site by a first aider and taken to hospital by ambulance where they were treated for a ruptured tendon. They will be required to wear a leg brace for at least two months, followed by further assessment to gauge the recovery of the tendon.

Underlying causes

The sub-contractor's Risk Assessment Method Statement (RAMS) covering the manual handling of the panels did not adequately address all the hazards and risks associated with the task. Had they completed an adequate Work Activity Risk Assessment (WARA) and followed the principles of a **T.I.L.E** assessment (Task, Individual, Load, Environment) at the point-of-work (i.e., POWRA), all the risks may have been identified and appropriately addressed. The presence of sharp edges on the panels was not detailed or acknowledged in the sub-contractor's RAMS. There was also no reference to the potential hazard in the material data sheets supplied by the roof panel supplier, but this is being addressed by the PC with the manufacturer.

It was stated in the subcontractor's RAMS that the operatives had received manual handling training but there was no evidence to support this. The PPE worn on the legs and arms was not robust enough to protect from the potential of cuts due to the sharp edges of the panels. However, suitable gloves (cut 5 - C) were being worn at the time of the accident.

An alternative panel delivery methodology using a crane instead of a telehandler would have enabled the panels to be placed on the roof at right angles to the purlins / ridge. This would allow the panels to be more easily slid into place and reduce the manual handling required.

It is understood that staff had always performed the task this way, including walking backwards and on uneven slopes, thus they may have become complacent to the risks involved. Use of a crane to better place the load would potentially reduce the risk.

Ensure adequate WARA's and POWRA's are completed on your projects.

If the WARA has a manual handling element to it, ensure that the four factors of a T.I.L.E assessment are considered prior to performing the task.

A Point of Work Risk Assessment (POWRA) is:

- A final check made before the work site team start work.
- Confirmation that all agreed controls are in place.
- A means of empowering the workforce to take ownership of their work area.
- A route to seek revisions to an approved method of work.

Consider a Hierarchy of Controls

Apply a Hierarchy of Controls principle when determining the mitigations to apply in any risk assessments, e.g., **ERIC-PD(Eliminate, Reduce, Isolate, Control - PPE and Discipline)**. In this scenario, addressing the sharp edge design of the roofing panels may have eliminated the risk, while more robust PPE may have reduced the impact but, as a mitigation measure, it is one of the last control measures that should be considered.

Ensure PC's have an adequate review process in place for site documentation.

Subcontractor's RAMS should always be reviewed by the Principal Contractor (PC). It is important that our Project Management teams satisfy themselves that PC's are carrying out this process on all their subcontractor's activities, and challenging methods of lifting and manual handling where improvements can be made.

Carry out some site assurance against key risks to ensure site activities are being carried out as planned.

As the Client on construction projects, Network Rail representatives should carry out some site assurance visits to ensure works are being carried out as planned in RAMS.

PC's to have their own assurance plans and schedules in place.

Network Rail project teams should ensure PC's have an assurance plan in place with respect to site visits, checking compliance with RAMS on-site, and checking on-site competencies. These assurance plans may be standalone documents or incorporated into Construction Phase Plans (CCP's) and/or Work Package Plans (WPP's).