



2017 / January

Safety Alert – Contact with electricity

Safety Alert author: Richard Spence Phone: 0427 847 941

Incident location: BT Project Site, Museums Victoria, Melbourne

Incident date & time: 21/12/16 @ ~1:15pm

Incident type: Electrical Energy

Please communicate this Safety Alert and its key messages to your team. Ensure relevant actions are complete and delivered where appropriate.

For more information, please refer to the full incident investigation report.

Incident description

At ~1:15pm on 21/12/2016 an electric shock was received by a licensed electrician working as a sub-contractor for Siemens on the Melbourne Museum site.

The electrician working as part of a team replacing over 6,000 fittings with LED alternatives as part of contracted works. He joined this work team just after 1pm on the day of the incident, after completing other work in another location on the customer site.

He opened a light fitting and began to disconnect the electrical terminals to remove the fitting from the supporting rail. The fitting he worked on was not electrically isolated and came into contact with the 220V supply when he touched the neutral wires in the terminal block (See Figure 1, below).

He completed the task and reported the incident shortly afterwards to his supervisor and left the site prior to the normal work day finish time. He attended a medical centre later in the day, was assessed including ECG, which confirmed no injury and normal heart function.

Work stopped to enable the investigation to start and verification that no further risk of contact with electricity existed. The incident was notifiable to both WorkSafe Victoria and Energy Safe Victoria. Neither regulator attended the site.

Actual and potential injury and damage

Actual outcome: no injury.

Potential outcome: permanent injury or fatality.

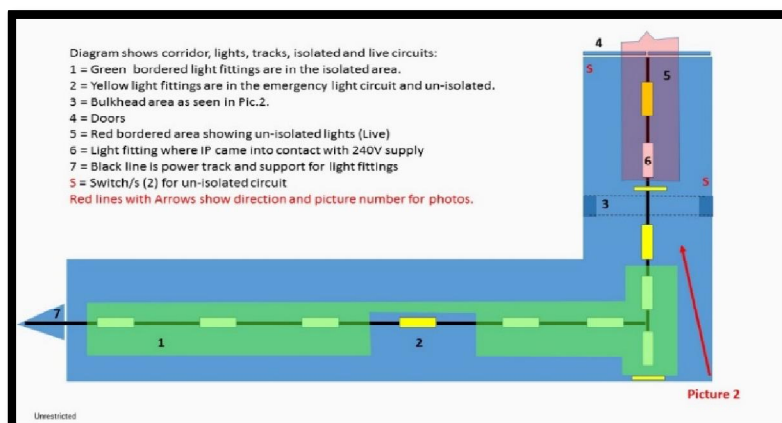


Figure 1. Plan of work area with electrically isolated area shaded green. Contact with electricity occurred at (6).

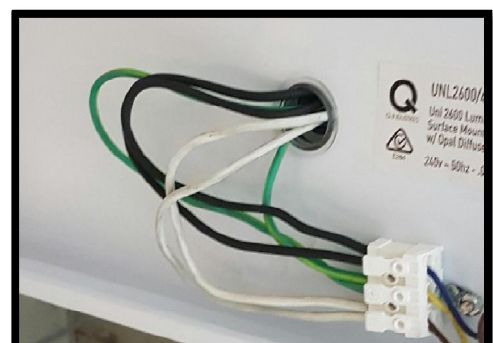


Figure 2. Terminal block in the LED light fitting. Note multiple active (white) & neutral (black) wires used to link this fitting to others in the circuit and that were energised at the time of incident.



Investigation findings

Contributing factors

1. Failure to recognise boundaries of isolation and to follow Lock Out/Tag Out and test for dead requirements, as required by Work Method Statement
2. Failure to adequately supervise all members of the work group by the sub-contractor, given the team member had just joined this work group after finishing work in another location on site & received no briefing on the scope of work

Root causes

1. Failure to follow site isolation procedures for risk of electric shock as per agreed controls as detailed in Work Method Statement
2. Personal acceptance of risk when working with electricity, based on skills and experience

Action undertaken locally

Work ceased and the area was made safe

Investigation commenced and regulators notified

Sub-contractor supported team member leave site and undergo standard precautionary medical check.

Key actions required within PS

Key action required	Responsibility assigned to	Timeframe	Evidence required
Revitalise Daily Prestart process & process implemented to brief any individual who join work teams during a shift put in place	Siemens PM	15.02.17	Updated Pre-Start process; team Member sign-on to all Work Method Statements
Verify implementation of electrical isolation including LOTO as required by sub-contractor Work Method Statement	Siemens PM	15.02.17	Updated Work Method Statement; Inspection to confirm practical implementation
Monitor & check sub-contractor works are completed in accordance with their Work Method Statement/s	Siemens PM	15.02.17	Inspections & Safety Walks
Sub-contractor employee excluded from site	Siemens PM	25.01.17	Communication to sub-contractor
These key actions will be applied across the relevant parts of the business to improve health and safety at Siemens.			Richard Spence EHS Professional Contact: 0427 847 941

Key actions to be applied across Siemens

Key action required	Responsibility assigned to	Timeframe	Evidence required
Safety Alert distributed across Siemens	Head of EHS	31.1.17	Distributed Alert to People Manager group
Siemens will complete these key actions and continue to improve the health and safety of our people.			David Scott Head of EHS

