

SWITCHBOARD WORK – NEAR MISS

A near miss incident has occurred at a worksite whilst a qualified electrician was preparing to inspect the bus bar to supply a MCB for a heat pump circuit. The switch board was “live” when he opened the front panel.

The tech tried to remove the bus bar capping, there was an arc flash effect with a synchronised “bang” sound. As a result of this arcing, two of the main incoming HRC fuses were blown, taking out all power to the site.

The electrician did not isolate at that time for the simple fact he had not identified a spare space in the board in which to terminate cable feed for the ac circuit into a suitable breaker. No circuit legend was available at the board to reveal the breaker framework, necessitating him to remove the bus bars capping.

Burn marks and loose connections were identified on the switchboard by the electrician, these hazards were noted on the SWMS – Site Specific prior to work commencement and photographs taken (see Fig. 1).



(Fig. 1)

As a result of this near miss, ACS policy for working on switchboards has changed and is to be applied immediately for the sake of on-going safety and reliability.

Authorised Service Agents (includes qualified electricians) can no longer make any modifications on or behind the board e.g. terminating cable feed into a breaker or fitting MCB’s to a bus bar assembly while it is live. When you reach termination stage at the board, contact your ACS Customer Account Manager, inform them of the work status, who in turn will arrange with the respective client, for their nominated electrical contractor to terminate.

Root Causes:

- 4 IN PAST, DID NOT FOLLOW PROCEDURES OR ACCEPTABLE PRACTICES AND NO INCIDENT OCCURRED
- c) Job habits / common practice has become out of line with procedures or acceptable standards
- d) Procedure is complex or difficult to use

Recommendations:

- 1) Authorised Service Agent made the board safe tightened circuit breakers and attached LOTO devices to switch board main
- 2) Contacted clients electrical contractor to repair and reinstate power to the site

Lessons Learnt:

- No modification work on or behind a live switchboard by any ACS Authorised Service Agent.
- When you are applying LOTO at the board for equipment isolation perform a Last Minute Risk Assessment (LMRA). If you feel your safety is at risk, due to the condition of the board e.g. loose breakers or connections, burn marks caused by arcing, **STOP** work, contact your ACS Customer Account Manager for further instruction.

“Work Live” and risk your life!!