

SAFETY ALERT

Shared Learning's

INCIDENT TITLE:

Minor electric shock from extension lead in Manapouri switchyard

TIME AND DATE OF INCIDENT:

15th May 2019 at approx.17:15

INCIDENT DETAIL :

A contractor was operating with an electric concrete saw (rotary twin blade diamond saw) in the Manapouri switchyard. There had been continuous rain for the past few days and the saw uses water to control dust and lubricate/cool the blades.

The worksite was covered with a temporary scaffold and tarpaulin structure. The saw was fitted with an inline RCD included in its plug. The extension lead powering the saw was tagged and in good condition.

The worker picked up the plug to unplug the saw to change position. He felt a tingle when he touched the plug. The supervisor was assisting him and touched the same plug and also experienced a minor shock from the plug as well.

Both experienced the electric shock when touching the plug, not the extension lead.

The connection point was wet, but clean and not covered in cutting slurry.

INITIAL RESPONSE AND INVESTIGATION OUTCOMES :

The work crew identified that the RCD did not provide protection to the extension cord on the supply side of the RCD.

The work crew tried to fit another RCD at the supply end of the extension lead. This did not work and tripped one of the RCDs immediately.

The inline RCD has now been removed from the saw allowing an RCD at the supply end of the extension lead to be used.

The work crew also dried and elevated the extension lead plugs off the ground and implemented a protocol where all leads will be turned off at the supply end before unplugging the tool at the work site.

LEARNINGS AND RECOMMENDATIONS FROM THIS INCIDENT:

1. All electrical equipment must be supplied from an RCD protected circuit that is fixed at the switchboard – this is a requirement of AS/NZS 3012: 2010
2. The following protocols are recommended where using electric power tools in wet environments:
 - Turn off at the supply before unplugging.
 - Test RCDs daily before starting work to ensure they trip and disconnect power
 - Inspect leads daily for damage
 - Remove leads from worksite at end of shift and place in a warm & dry location
 - Ensure male plug ends are dry before connecting
 - Ensure plugs are elevated from the ground and protected from water sprays from tools
3. Ensure lead with correct level of IP Rating are to be used on site (Plug-cover clam shells are to be used between extension leads and appliances).

PHOTO:



The Corporate Safety and Health Team are currently working on systems to support the above learnings. If interested in viewing the full investigation report for this incident, it can be found in:

https://www.riskmanager.co.nz/documents/20190531085459.Incident%20Report%20ICAM%20Electric%20Shock%20Incidents_Final.pdf or please contact a Meridian Safety Specialist



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