

Alert

Health Safety Environment

14/03/2024



Incident date: 29.02.2024

What happened?

- After a Downer project team had performed Very-Low Frequency (VLF) cable testing, third party contractor entered the work area and touched a discharged cable, receiving a shock.
- The VLF testing had been completed as per procedure and verbal confirmation of cable discharge was given to the third-party contractor.
- Integrity checks on the station earth grid and test equipment have ruled these out as contributing to the incident.



What did we learn?

- Capacitive coupling can cause a transfer of energy to un-earthed cables in the vicinity of VLF testing. The project team believe this has related directly to this incident.
- The risk of capacitive coupling can be significantly reduced by following Earthed working procedures.
- When contacting cables, a test before touch approach should always be completed by the individual to ensure safety before access.

All Downer procedures relating to VLF testing are being updated to include:

1. All permanent earthing must be completed before VLF testing begins, and all cables in the vicinity of the VLF testing must be earthed before commencing testing.
2. Before commencing VLF testing, all adjacent cables will have their phase conductors earthed.
3. Insulated HV gloves must be used to provide protection against shocks and must be worn to swap test and bonding leads.

Review these questions with your team at your next pre-start meeting.



**Stand
in the
gap**

How could this happen on your job?

What can you do to prevent it happening again?

How can you 'Stand in the Gap'?

Further information

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Useful Resources

[Link to Document](#)