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INCIDENT	A1P4
SUBJECT	Underground Power Strike
INCIDENT DATE	14/08/2020
BUSINESS UNIT	Higgins – Levin

WHAT HAPPENED?

At approximately 8.25 am, 14 August 2020, a Higgins Levin drainage crew were excavating a trench to lay a new watermain. The job required the old (metal) water pipe to be removed and a new 225mm PE laid.

The Network service owners (Electra) conducted locate and mark-out in early June during the design stage of the job. The operator had excavated approximately 7m of trench and was in the process of lifting out a section of an old water pipe. Unknown to the operator this section of pipe passed between a 400V power main (on top) and an 11kV power cable (beneath the pipe).

The spotter had noticed the wire and called the operator to cease operation. The pipe (being free of the cable) and bucket were lifted from the trench. It was noticed the pipe had snagged the power cable and as a result had severed the 400V negative cable.

No one was injured and no plant damaged as a result of the cable strike. No local businesses or residents were affected by the power strike.

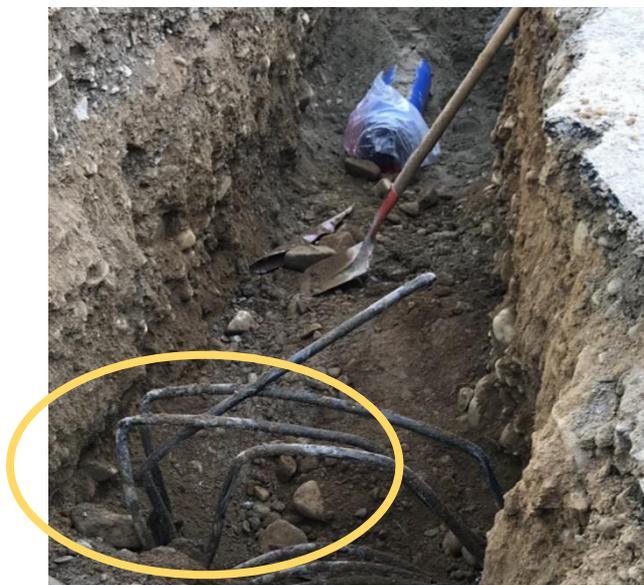


Photo: Section of old pipe passed between a 400V power main (on top) and an 11kV power cable (beneath the pipe)

WHAT DID WE DO IMMEDIATELY?

Element	Action
Emergency Response	The operator parked up the excavator and the area around the cable strike was evacuated to 10m. Electra operations were called to isolate the power supply and conduct a repair.



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Interim Risk Containment Actions	Traffic controllers were positioned to prevent any members of the public from trying to enter the working space. A group discussion to review the process was conducted with the affected workers while awaiting the arrival of the TDDA van.
Post-Incident Drug and Alcohol Testing	Post-incident D&A testing was carried out - All five (5) workers tested negative.

WHAT DID WE LEARN?

We learned that we need to question the following:

- Has a transfer of responsibility been conducted each time the site is handed over, including after mark-out and before commencing work? Transfer of responsibility should include a walk-over of the site and identification of all service structures against the network owner plans.
- Are service mark-outs adequately maintained or remarked prior to work commencing?
- Have we positively located all services? If a service cannot be positively identified, the network owner should be contacted to positively locate the service.

WHAT ARE WE DOING DIFFERENTLY?

Element	Corrective Action
Monitoring	We are increasing our focus on critical risk verification audits for working around utility services.
Hazard Identification Process	We have updated our JSEA to include an additional control to run locators across the intended path of excavation to check the ground between marked services.
Service Location Devices	We have requested the purchase of a ground penetrating radar unit.
Communication	We are working closely with the Network Owner including the sharing of GPS location data for the Electra GIS team to use when updating their service plans.
Training	We have conducted an introduction training on the new Critical Risk Standard (CRS) and safe work system for working around utilities. Two Branch staff have completed the CRS Train the Trainer sessions and will be able to continue educating the local staff.

FOR MORE INFORMATION, PLEASE CONTACT

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