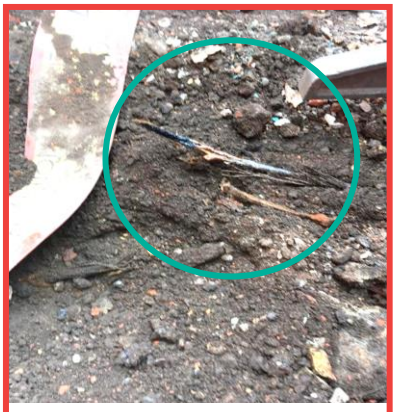
LESSONS LEARNED

230V CABLE STRIKE



Cable indicated in green, 400mm below ground level.

The Incident

On the 8th of September, at approximately 16:00, a service strike occurred, when a 5t tracked excavator struck a 230V live cable. This cable was located at a depth of 400mm below ground level, without surround and marker tape. The team were carrying out a formation dig in preparation for pavement construction within the car park.

The service strike caused a small match size flash which was spotted by the banksman. No one was injured and no damage occurred to the excavator bucket. Following the service strike the area was cordoned off and all site teams were made aware. UKPN was called and attended site the following day to carry out repairs.

Main Findings

- The Live LV cable was pot ended in 2019
- All services within the area were identified on the service plans. Trial holes had been carried out to positively identify services, including locating the pot ended cable and verifying its depth
- During this work, the pot ended cable was not fully exposed and traced out of the work area because it was within an operational access road
- The cable strike occurred during a second visit to the work area when trimming the ground to formation level of 425mm below ground
- It was assumed that the cable would run at the verified depth of 700mm below ground
- Insufficient precautions were taken prior to issuing the permit.

Learning

- When returning to work areas to carry out further excavation, ensure work methods, risk assessments and permits are reviewed and personnel re-briefed on the requirements
- All underground services must be detected, identified and marked on the ground including exclusion zones
- Mechanical excavation should not take place within 500mm of a known service
- Never assume that cables are laid flat, positive identification by exposing cables in the work area should be undertaken.

Recommendations & reminders

All sites where excavation is undertaken near underground services or is envisaged must be carried out in accordance with the BMB standard SH6 – STD1 and guidance SH6 – GUID1. All sites are required to revisit their permit to break ground and review their RAMS to ensure the above learning and following points have been taken into account:

TAKE ACTION

- Eliminate the risk of exposure to services: contact service owners to arrange for isolation of supply wherever possible
- Identify safe methods of excavation around buried services
- The use of a Cable Avoidance Tool (CAT) including a signal generator (Genny) and hand dig inspection pits prior to using an excavator
- A calibrated CAT & Genny should be on site and available for use every time the ground is to be penetrated
- Supervisors and Managers must monitor compliance with the permitting regime and challenge non-conformances
- Those involved in detecting and identifying services must be competent in the proper use of detection equipment.

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28th September 20'