

Safety Alert

HIGH HAZARD SITUATIONS ENCOUNTERING CABLES BURIED IN CONCRETE

What Occurred?

A 3 Phase LV Cable was damaged when an operative was breaking out concrete using a hand held pneumatic breaker to expose a buried power cable which resulted in flash burns to the operatives face.

The Task

The team was tasked to excavate in the footpath in preparation to alter an existing gas service. The footpath consisted of modular paving on a concrete bed.

The team had all the relevant documentation onsite including the electricity utility records.

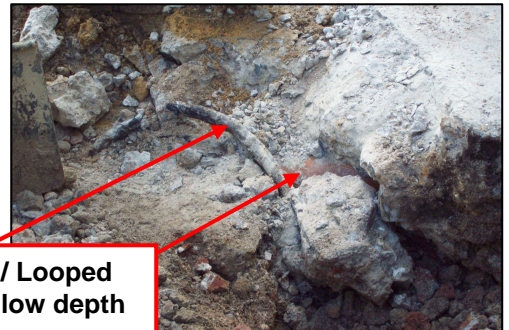
The area was scanned using a CAT in conjunction with the utility records, and the area was clearly marked out.

The Incident

Without prejudice, the operative appeared to have used the breaker directly on the marked line of the known power source.

The cable was encased in the concrete at a shallow depth and buried less than it's expected and required depth just below the concrete bedding for the modular paving.

Subsequently the cable was damaged resulting in a flash. The operative was taken to hospital with facial burns.



Plastic Duct / Looped cable at shallow depth

Learning Points for MUS

The area should be CAT scanned in all three modes in conjunction with utility plans and the area clearly marked accordingly.

The national depth requirements for Low and High Voltage cables in accordance with NJUG are 450mm and 600mm respectively. The cables should be sanded and in the case of HV / EHV cables have tiles above them.

An on-site Risk Assessment should always be completed and communicated to all team members.

"NEVER dig directly on the line of identified underground plant. Mechanical Plant / sharp digging tools or hand held power tools **MUST** not be used **WITHIN** 0.5 Mtrs of any identified or suspected buried service / plant.

Always hand dig trial hole(s) to expose and confirm the location and depth of power cables. In the case of extended trench(s) for cables and pipes, trial holes will be hand excavated at regular intervals over the whole length of the lay.

If it is determined or suspected that a cable is embedded in concrete:

- Work **MUST** be **STOPPED** immediately.
- The Team will contact their supervisor, whom will attend site.
- The supervisor will contact the network owner.

Is it necessary to remove the concrete to complete the task, the network operator should be contacted to provide guidance, and where appropriate de-energise the cable(s) prior to the concrete being removed.

Always communicate the task in hand prior to any works being carried out and always report un-safe situations.

IMPORTANT

THE CLEARANCE BETWEEN THE CONCRETE AND THE CABLE MUST NEVER BE ASSUMED