

Low Voltage Cable Strike

Summary of Incident

A team consisting of three civil engineers were working in conjunction with the local authority who was replacing an area of paving within the public footway, allowing for the installation of ducting to upgrade the communication network. A key element of the works involved the core drilling of a 100mm diameter hole within the side of a concrete BT – Openreach chamber / box to allow duct and cable access.

Following the commencement of the core drilling activity, an electrical flashover occurred from contact with an existing underground Low Voltage (LV) electric cable, resulting in the engineer sustaining minor injuries to their upper limbs.

The engineer attended the local Accident and Emergency unit for examination / treatment and is subsequently back to work.

Other factors

- Safe system of work not complied with
- The underground LV electric cable had not been fully exposed to determine depth, route, and location
- The core drill was defective (side handle missing) and not suitable for use
- No dust suppression in place
- No face or eye protection utilised with incorrectly worn protective clothing; sleeves of the fire-resistant clothing rolled up, exposing areas of bare skin

Learning Points

- Always ensure you adopt the correct working methods in line with your training, skills, experience, and knowledge
- When working in and around underground apparatus, always comply with HSG47 avoiding damage from underground services
- Risk assess your activities, identify all associated hazards, implement appropriate control measures and record via the on-site / point of work risk assessment app
- Always ensure Personal Protective Equipment (PPE) / Respiratory Protective Equipment (RPE) is suitable, sufficient, and worn correctly to provide you with the necessary protection
- Never use defective plant, tools, or equipment; report it to your line manager and obtain a replacement
- Ensure suppression measures are in place to minimise and control exposure to dust (water suppression and the wearing of RPE; FFP3 face mask – *Note: Face Fit Test to ensure suitability and fit of RPE*)
- If unsure, Stop Work and Ask!

