# Safety Matters

#### When working near underground cables







## Introduction

## This leaflet aims to help anyone who excavates or penetrates ground to stay safe.

Over the past 10 years in the UK, there have been over 1,000 recorded injuries as a result of contact with underground electricity cables. Many of these incidents have been on construction or demolition sites, with the remainder on public highways, footpaths, domestic premises and gardens. Damage can result from excavation or penetration of the ground and can cause an explosion, leading to severe burns and even death.

#### **Important Notes**

- Contact us for free cable plans before work starts.
- Houses, shops, offices, factories, street lighting and other street furniture all have underground electric cables or overhead power lines supplying them.
- Underground cables don't run in straight lines; they're flexible and change direction and depth.
- Supply cables associated with derelict buildings should be treated as LIVE until confirmed otherwise by SP Energy Networks.
- Not all cables are shown on plans.
- If a cable is buried in concrete, don't attempt to break it out; contact SP Energy Networks to ensure the cable is de-energised.

- Exercise extreme caution when using picks, forks, pinch bars, pins or any other pointed instruments to free lumps of stone or break up compacted ground.
- Never throw a pick or sharp instrument into the ground.

#### Plan Ahead, Look Around

- Carry out a risk assessment in accordance with HSE Guidance Note HS (G) 47, 'Avoiding Danger from Underground Services'.
- Ensure you have up-to-date plans of underground services in the area (we can supply these if you don't have them).
- Include our emergency telephone number on your farm map/site plans and in your list of telephone contacts; then ask your workers to save it in their mobiles.
- Always scan the area you intend to excavate using a Cable Avoidance Tool (CAT) and Genny.
- If emergency work is being carried out and plans aren't readily available, excavate as though there are buried LIVE cables in the vicinity.
- Be aware that the actions of third parties could have altered cable depths or positions since the cables were laid.
- Service connection cables may not be shown on plans, so look for indications of potential services, e.g. street furniture.
- Mark cable positions using waterproof road paint or other permanent marker.

#### **Excavate Trial Holes With Caution**

- Ensure current cable records are on site. We provide them free of charge.
- Use a Cable Avoidance Tool (CAT) and a spade or shovel.
- Never use a pick, fork, pinch bar or power tool.
- Ensure current cable records are on site.
- Ensure staff are fully trained to excavate and use tools appropriately and safely.
- Hand-dig trial holes along the indicated cable route to confirm the position of services.
- Hand-dig as many holes as necessary, particularly if there are plastic pipes which can't always be found by a CAT.
- As you progress, look out for marker tape, ducts or cable covers which indicate the presence of underground services.
- Don't use exposed cables as convenient steps or handholds.
- Don't operate a bulldozer, scraper, dragline or excavator unless you're satisfied that all buried services have been identified in the working area.
- Backfill around services with a fine material; then cover the cable with stone-free soil or stone dust and replace any cable marker tiles, ducts and tape.

www.spenergynetworks.co.uk/safety

## If You Damage an Underground Cable

- If your machine is still in contact with the cable, JUMP CLEAR without touching any part of the machine.
- Call the Emergency Services if anyone is injured.
- Keep others well away and ensure everyone in the working party stays clear.
- Always treat the cable as LIVE even if it's damaged or not sparking damaged cables can remain 'live' or be re-energised.
- Don't touch any machinery, tools or equipment in contact with the damaged cable.
- Report the damage to SP Energy Networks using the emergency telephone number as soon as possible.

#### A clear sign



Look up and look out for this sign. It means what it says.



#### **Contact Us**

We provide free safety advice to help you when you are planning to work near cables.

For free safety advice and general network enquiries:

- www.spenergynetworks.co.uk
- customercare@spenergynetworks.com
- 0330 10 10 444

#### For electricity network plans:

- Cheshire, Merseyside, NorthCoWales & North ShropshireSo
- 0141 614 5666
- requestforplansmanweb @spenergynetworks.co.uk

#### In an emergency only:

Cheshire, Merseyside, North Wales & North Shropshire

0800 001 5400

#### Central & Southern Scotland

- 0141 614 9903
- requestforplansscotland @spenergynetworks.co.uk

Central & Southern Scotland () 0800 092 9290

### **Further Information**

Comprehensive advice is available from the Health & Safety Executive (HSE) via **www.hse.gov. uk/electricity/information/excavations.htm** 

Before starting work, we also strongly recommend you read:

- Health and Safety Executive (HSE) Guidance
  Note HS (G) 47, 'Avoiding Danger from
  Underground Services'. This can be downloaded
  free of charge from the HSE website.
- Energy Networks Association's free leaflets: www.energynetworks.org/electricity/she/ safety/safety-advice/public-safety-leaflets.html