

## Case Study: Low Voltage Cable Strike (Flash Burn Injuries)



**The above image highlights a low voltage cable strike to the ScottishPower electrical network.**

The task was to carry out excavations for a new service to the property. The operative came into contact with the low voltage cable when operating a kango hammer gun. Unfortunately on this occasion the operative had to attend hospital after receiving flash burns to his head, neck and lower arms. The investigation into this incident discovered that no cable records had been consulted prior to the excavations taking place and that the use of a cable locator had also not taken place.

ScottishPower cable records should always be consulted prior to any ground penetration taking place. Cable record enquiries are to be directed to ScottishPower Data Management section.

**Prior to any excavations taking place cable records should always be consulted.**

**Always assume cables are present and live until proved otherwise.**

**All Cable Record enquiries should be addressed to:**

**SP Energy Networks (North)**  
Data Management  
(Correspondence)  
55 Fullerton Drive  
Cambuslang  
Glasgow G32 8FD  
t: 0141 567 4155 or 0141 567 4455  
e: Requestforplansscotland  
@scottishpower.com

**SP Energy Networks (South)**  
Data Management  
(Correspondence)  
North Cheshire Trading Estate  
Prenton Way  
Prenton  
Birkenhead CH43 3ET  
t: 0151 609 2373  
e: Requestforplansmanweb  
@manweb.co.uk

**All Cable Deviation Requests /Service Alterations enquiries should be addressed to:**

**SP Energy Networks (North)**  
Customer Connections  
55 Fullerton Drive  
Cambuslang  
Glasgow G32 8FA  
t: 0141 614 9997

**SP Energy Networks (South)**  
Customer Connections  
PO Box 290  
Lister Drive  
Liverpool L13 7HJ  
t: 0151 221 2110

## Emergency contact

In an emergency, or if there is any damage to SP Energy Networks cables or plant, call the appropriate number:



**SP Energy Networks  
North**  
*Central & Southern  
Scotland*  
**0845 272 7999**

**SP Energy  
Networks  
South**  
*Cheshire,  
Merseyside  
& North Wales*  
**0845 272 2424**



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NETWORKS**

## Case Study: Low Voltage live service cable cut with hacksaw



The above image highlights a low voltage cable with a straight joint attached. An operative took a hacksaw and severed the cable which was attached to the ScottishPower network.

The experienced operative wrongly assumed that the cable was out of use, fortunately on this occasion the operative received no injuries. All electricity cables are to be treated as live at all times, until proved otherwise by a ScottishPower engineer.

Prior to any excavations taking place cable records should always be consulted.

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## Case Study: Low voltage cable damaged with pneumatic gun spade tool



The above image highlights a damaged spade tool on a pneumatic gun which has come into contact with a low voltage cable.

The task for the operatives was to install ducting in the footpath. During the course of the works the operative lost control of the pneumatic gun and struck the LV cable which had previously been exposed, fortunately on this occasion the operative received no injuries. Operatives knew the route and depth of the electricity cable having trial holed the footpath prior to the main excavations taking place. To prevent this type of incident a risk assessment/method statement and a safe system of work should have been established prior to works taking place.

Safe system of work is required to be in place prior to excavations taking place.

Prior to any excavations taking place cable records should always be consulted.

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## Case Study Low Voltage Cable Damaged Whilst Installing New Lamppost



The above image highlights a situation which occurs on a regular basis to ScottishPowers underground electrical network.

Contractors who were operating for a local authority to install a new lamppost; the lamppost was placed in direct conflict with the underground low voltage main cable. To carry out the required excavation for the lamppost installation, “spoons” are the tool of choice used to keep the required lamppost hole to a minimum size.

Placing Lampposts or any other type of street furniture on top of or with no separation to the underground electrical network could lead to operatives receiving serious injuries. Cable record enquiries are to be directed to ScottishPower Data Management section.

**Plan the Project**

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## Case Study: Low Voltage Cable Strike To Mains Cable With Hand Tool



The above image demonstrates a low voltage cable damage to a lead covered .2(4) mains cable. The task for the operatives was to remove underground apparatus and install new equipment at the locus, during the excavations the cable was damaged with a hand tool! The operatives had received all the relevant training regarding excavating around underground utilities, all the utility records had been supplied, cat & genny as standard on site with all the tools to carry out the excavations in a safe/competent manner. This cable strike could easily have been avoided, operatives require to take responsibility for their actions to ensure that no injuries will occur or damage to underground utility plant takes place. Every excavation is different and can have numerous potential hazards.

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**Before Penetrating The Ground A Risk Assessment  
And Safe System Of Work Should Always be implemented**