

# Case Study: Example of SP Energy Networks cables





The above image demonstrates a selection of SP Energy Networks underground cables.

- red cable is a Coral 11,000 volt cable
- the middle of the image highlights **wire armoured** and **tape armoured cables** and also a **paper insulated lead covered cable (PILC)**
- the bottom cable is a **plain lead covered cable**.

Hand excavate around SP Energy Networks cables.

All cables to be treated as live at all times.

When excavations are taking place around electricity cables **adherence to HSG47** is recommended along with a permit to excavate system.

# 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



# Case Study:

33kV cable joint

preparation and





The top image demonstrates a fault on a 33KV cable in the process of being prepared for jointing.

The lower image highlights the completed cold shrink joint on the 33kV cable.

Notice the repair on the cable has three single core cables, rather than one large cable, repairs to 33kV cables will continue to be replaced with single core cables, normally laid in trefoil formation.

# 33kV single core cables are installed in trefoil formation

# 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



# Case Study: High Voltage Polymeric cable joint





The above image highlights a high voltage cable joint on a Polymeric to Polymeric electrical cable (red cable), operatives undertaking excavations may not have come across this type of joint before, the joint is a sleeve made up of a composition of plastic and rubber (XLPE) and is fit for purpose. Using cables as a step or hand hold to enter or exit excavations is not recommended.

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

All SP Energy Networks cable record enquiries are to be directed to the relevant North or South Data Management team.

Always assume cables are live.

Access and egress routes at excavations should be clearly defined.

# 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



# Case Study: Low Voltage Lead Covered Cables And Joints





The above image demonstrates a low voltage lead covered cable joint.

This type of joint is an older type cable joint on the underground electrical network, excavating around this type of apparatus requires more caution as the lead covered cables and joints are not as robust as modern day underground electrical plant. Moving or standing on lead covered cables/joints will more than likely result in the cable being damaged. To prevent inadvertent contact with lead covered cables through excavations taking place, a risk assessment and a safe system of work should be implemented to ensure operatives are aware of all the possible risks when operating around this type of electrical network, also taking into account safe access and egress at the locus of the excavation.

Prior to excavations taking place, take time to assess the type and construction of all underground apparatus to be exposed.

# 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