

Serving the Midlands, South West and Wales

Our Ref: Your Ref:

Friday, 02 May 2014

Owen Davies 30 34 Hounds Gate Nottingham Nottinghamshire NG1 7AB

Dear Owen Davies

Thank you for your enquiry dated Friday, 02 May 2014

I now enclose a copy of our plan showing existing Western Power Distribution (WPD) Electricity / WPD Surf Telecom apparatus in the vicinity of your proposed works. This information is given as a general guide only and its accuracy cannot be guaranteed. Please note that all WPD equipment on site should be assumed to be LIVE until WPD prove otherwise and provide you with confirmation to this effect in writing. Recent additions to our network, or service connections between the main cable and a building or street lamp may not be shown.

Damage to underground cables and contact with overnead lines can cause severe injury or may prove fatal. If you are excavating on site in the vilinity of either WPD Electrical apparatus or WPD Surf Telecom apparatus you must comply vilinity of either wPD Electrical apparatus or WPD.

Health & Safety Executive guidan e I \$\(^1\)4\(^1\), Avoiding Danger from underground services.

Work taking place in the vicinity of our plant is also regulated under the:-

Electricity at Work Regulations 1989, Health and Safety Act 1974, CDM Regulations 2007.

<u>Safe working procedures should be defined and practiced</u>

Please ensure that the use of mechanical excavators in the vicinity of our plant is kept to a minimum. WPD Surf Telecom ducts contain fibre cables, which are expensive to repair. Therefore, extreme care must be taken whilst working in the vicinity of these ducts, hand digging methods being used to determine their precise position.

If there are overhead lines crossing your site and your proposal involves building works which may infringe the clearance to our overhead system then you should call the relevant general enquiries number (see page 2 of this letter) for advice. Where overhead lines cross your site you must comply with the requirements of Health & Safety Executive guidance as laid down in GS6, Avoidance of Danger from Overhead Electric Lines.

Where diversions to WPD apparatus are needed to allow change to occur on site, the cost of these alterations may be charged to the persons responsible for the works.

If you require advice in connection with your proposals please contact the relevant general enquiries number (see page 2 of this letter)

Following consultation the local Western Power Distribution team will where necessary prepare detailed proposals and provide a quotation for any necessary alterations and/or development of our equipment on the site.

Yours sincerely WPD Map Response Team

Western Power Distribution,

Mapping Centre
Toll End Road

Tipton

West Midlands United Kingdom

DY4 0HH

www.westernpower.co.uk

Map Response
T 0121 623 9780
F 0121 623 9223
WPDMapResponse

@westernpower.co.uk

Western Power Distribution PLC

South West - 02366894

South Wales - 02366985

East Midlands - 02366923 West Midlands - 03600574

Registered in

England and Wales

Registered Office:

Avonbank

Feeder Road

Bristol

BS2 OTB



Serving the Midlands, South West and Wales

Contact Us

You can contact us 24 hours a day, 7 days a week, 365 days a year with any power supply issues

	Landline users	Mobile user*
East Midlands	0800 056 8090	0330 123 5009
West Midlands	0800 328 1111	0330 123 5008
South Wales	0800 052 0400	0330 123 5002
South West	0800 365 900	0330 123 5001

^{*}calls to 0330 numbers will cost no more than a local rate number from a landline or mobile. If you get inclusive minutes in your mobile phone package, calls to 0330 numbers are included

Mapping Enquiries

If you have an enquiry relating to this letter or the attrached map plan, please contact us using the following information:

Telephone 0121 623 97 8 Fax 0121 613 92

Email WPDMap.esponse@westernpower.co.uk

General Enquiries

If you have a general enquiry, please call us on the following telephone numbers:

Midlands 0845 724 0240 South Wales 0845 601 3341 South West 0845 601 2989



Steps to help keep you safe

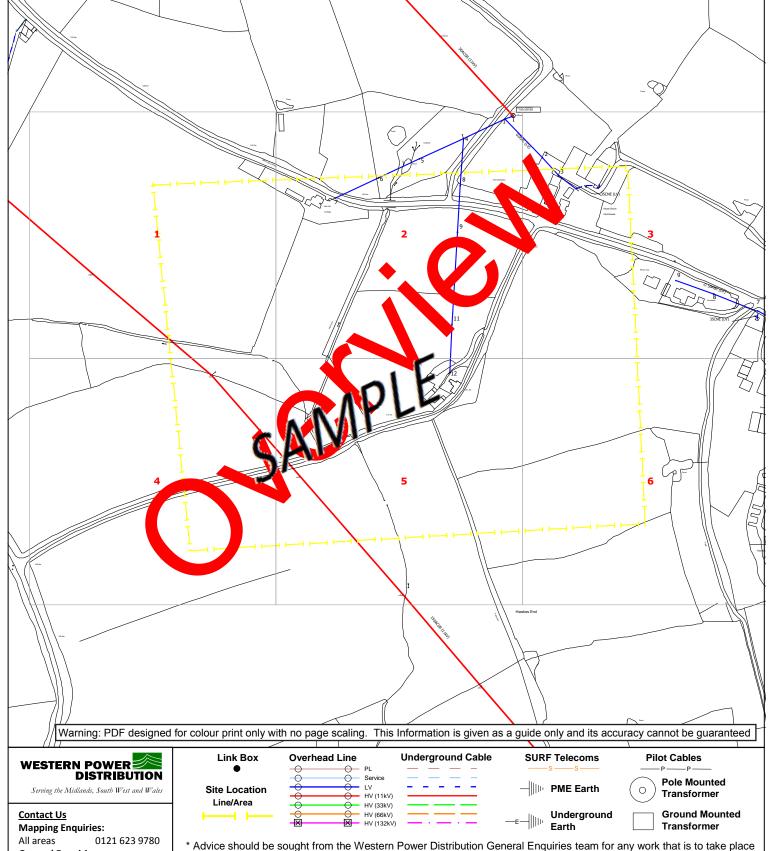
 If you are working within 10 metres of our 33kV, 66kV, 132kV underground electricity cables or within 10 metres of an overhead electricity line you should call the relevant General Enquiries for free safety advice.

Safety Documents – please download our informative safety documents to help ensure that you, your staff and the public are kept safe whilst working in the vicinity of electricity.

http://www.westernpower.co.uk/Health-and-Safety/Public-Safety

- Make sure you have up to date plans remember that recent additions to our network or service connections between the main cable and a building or street lamp may not be shown.
- Look for signs of service cables an electricity meter box or nearby streetlamp may give you an indication that service cables are present in your area of work.
- **Non WPD Network** electricity cables, lines and equipment owned by others may also be present in addition to WPD network. They are unlikely to be shown on our plans.
- **Use a cable locator** trace electricity cables and mark the position of them using paint or other waterproof marking on the ground.
- Hand dig trial holes to confirm the position of cables in close proximity to your area of your work and use spades and shovels rather than pinks pans or forks.
- **Have an emergency plan** so that everyone working on site understands what to do in the event of an underground electricity cable being damaged or contact being made with an overhead electricity line.
- If you are working within 10 metres of an overhead electricity line then it may be necessary for you to erect warning signs and markers, or height restriction goal posts. Ensure that you comply with the requirements of Health & Safety Executive guidance laid down in GS6, Avoidance of Danger from Overhead Electric Lines.
- If you are erecting a structure that could allow anyone standing on it, or its access device (ladder, scaffold, MEWP), to come within 3m of any overhead electric line then you must inform us. This is your duty and a legal requirement under the Electricity Safety, Quality & Continuity Regulations 2002.
- If you cannot work safely around the underground electricity cable or overhead electricity line, then you
 may need to get it moved to allow your works to go ahead. Call the general enquiry numbers above for
 guidance.
- It is possible that cables or pipes may be embedded in concrete electricity cables embedded in concrete MUST be made 'dead' by Western Power Distribution or the cable owner before the concrete is broken out. Alternatively, another safe way of working should be agreed.

Cables are sometimes covered by tiles or a marker tape - these can be concrete, polythene or earthenware and are a useful early warning of the presence of cables; you should avoid disturbing any tiles or tape to expose the cable. Not all cables have these warning indicators.



General Enquiries:

0845 724 0240 Midlands South Wales 0845 601 3341 South West 0845 601 2989

Date Requested: 02/05/2014 Job Reference:

Site Location: 429552 283472 Requested by:

MR Owen Davies

Your Scheme/Reference:

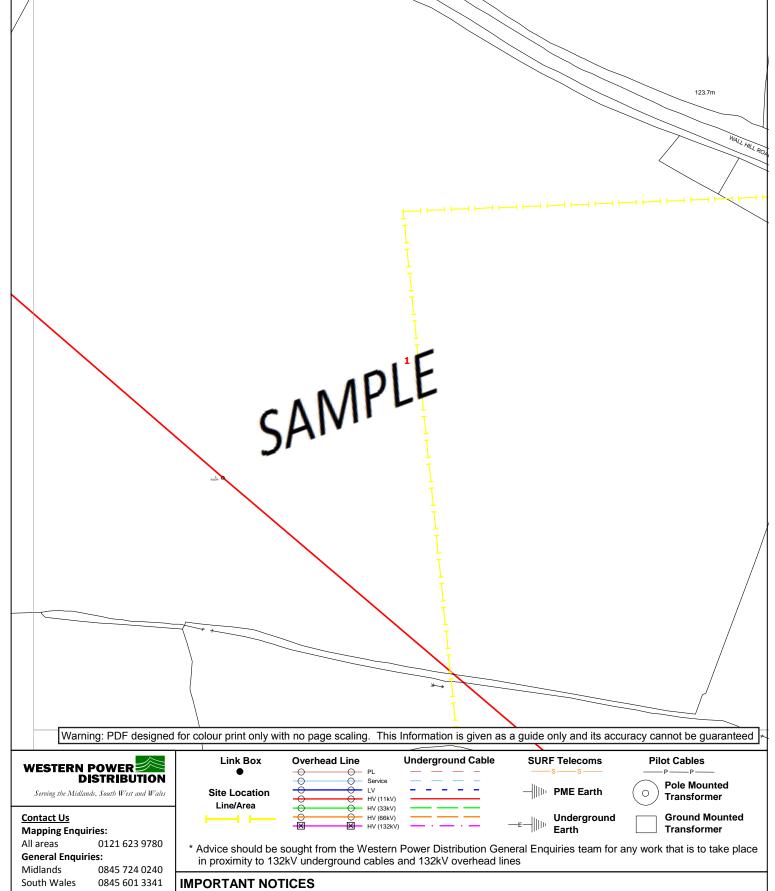
* Advice should be sought from the Western Power Distribution General Enquiries team for any work that is to take place in proximity to 132kV underground cables and 132kV overhead lines

IMPORTANT NOTICES

- These plans are provided as a general guide only. Services or recent additions to the network may not be shown.
- Cables, overhead lines & substations owned by other electricity network owners or private companies may be present but will not
- You should always verify exact locations of cables using a cable locator and by careful use of hand tools in accordance with HSE quidance note HSG47.
- When working within 10m of any overhead electric line you should follow the requirements of HSE Guidance Note GS6.
- For further advice on working near our electricity cables or lines, call our General Enquiries number.

Report damage immediately - KEEP EVERYONE AWAY FROM THE AREA East Mids 0800 056 8090 West Mids 0800 328 1111 South Wales 0800 052 0400 South West 0800 365 900

Crown Copyright © All Rights Reserved. Ordnance Survey Licence numbers: EL27318X, 100024877 and 100021807. WPD Copyright: This copy has been made by or with the authority of Western Power Distribution (WPD) pursuant to Section 47 of the Copyright Designs and Patents Act 1988 unless that Act provides a relevant exception to copyright the copy must not be copied without the prior permission of the copyright owner



South West 0845 601 2989

Date Requested: 02/05/2014 Job Reference:

Site Location: 429552 283472 Requested by:

MR Owen Davies

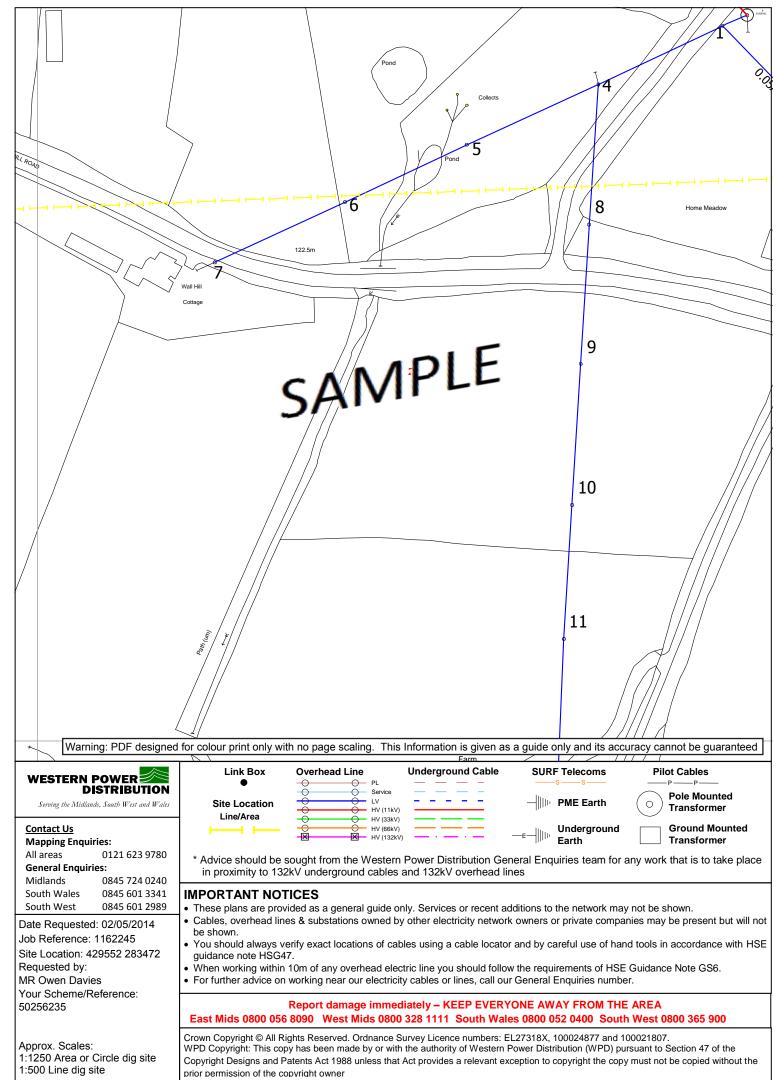
Your Scheme/Reference:

- These plans are provided as a general guide only. Services or recent additions to the network may not be shown.
- Cables, overhead lines & substations owned by other electricity network owners or private companies may be present but will not
- You should always verify exact locations of cables using a cable locator and by careful use of hand tools in accordance with HSE quidance note HSG47.
- When working within 10m of any overhead electric line you should follow the requirements of HSE Guidance Note GS6.
- For further advice on working near our electricity cables or lines, call our General Enquiries number.

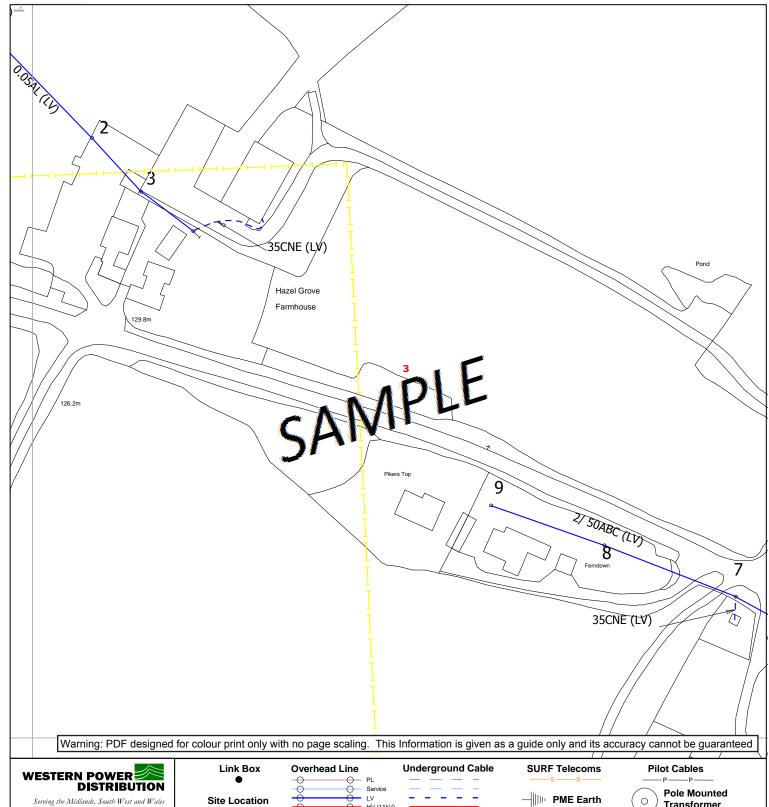
Report damage immediately – KEEP EVERYONE AWAY FROM THE AREA East Mids 0800 056 8090 West Mids 0800 328 1111 South Wales 0800 052 0400 South West 0800 365 900

Crown Copyright © All Rights Reserved. Ordnance Survey Licence numbers: EL27318X, 100024877 and 100021807. WPD Copyright: This copy has been made by or with the authority of Western Power Distribution (WPD) pursuant to Section 47 of the Copyright Designs and Patents Act 1988 unless that Act provides a relevant exception to copyright the copy must not be copied without the prior permission of the copyright owner

Approx. Scales: 1:1250 Area or Circle dig site 1:500 Line dig site



Plans generated by DigSAFE Pro (tm) software provided by PelicanCorp



Contact Us Mapping Enquiries:

All areas 0121 623 9780 **General Enquiries:**

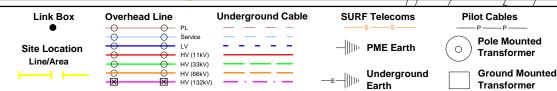
0845 724 0240 Midlands South Wales 0845 601 3341 South West 0845 601 2989

Date Requested: 02/05/2014 Job Reference:

Site Location: 429552 283472 Requested by: MR Owen Davies

Your Scheme/Reference:

Approx. Scales: 1:1250 Area or Circle dig site 1:500 Line dig site



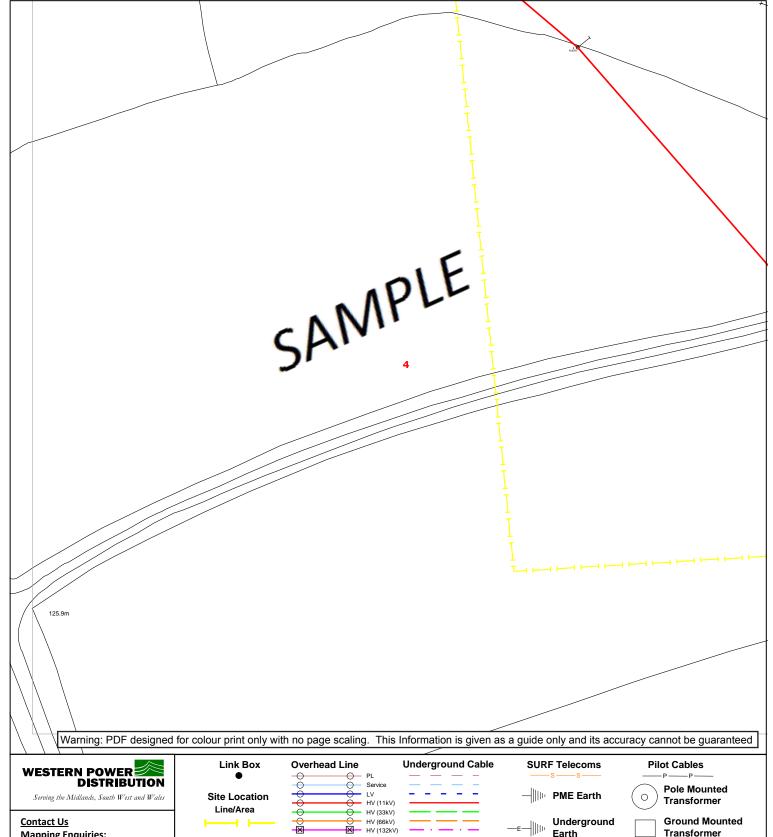
* Advice should be sought from the Western Power Distribution General Enquiries team for any work that is to take place in proximity to 132kV underground cables and 132kV overhead lines

IMPORTANT NOTICES

- These plans are provided as a general guide only. Services or recent additions to the network may not be shown.
- Cables, overhead lines & substations owned by other electricity network owners or private companies may be present but will not
- You should always verify exact locations of cables using a cable locator and by careful use of hand tools in accordance with HSE quidance note HSG47.
- When working within 10m of any overhead electric line you should follow the requirements of HSE Guidance Note GS6.
- For further advice on working near our electricity cables or lines, call our General Enquiries number.

Report damage immediately - KEEP EVERYONE AWAY FROM THE AREA East Mids 0800 056 8090 West Mids 0800 328 1111 South Wales 0800 052 0400 South West 0800 365 900

Crown Copyright © All Rights Reserved. Ordnance Survey Licence numbers: EL27318X, 100024877 and 100021807. WPD Copyright: This copy has been made by or with the authority of Western Power Distribution (WPD) pursuant to Section 47 of the Copyright Designs and Patents Act 1988 unless that Act provides a relevant exception to copyright the copy must not be copied without the prior permission of the copyright owner



Mapping Enquiries:

All areas 0121 623 9780 **General Enquiries:**

0845 724 0240 Midlands South Wales 0845 601 3341 South West 0845 601 2989

Date Requested: 02/05/2014 Job Reference:

Site Location: 429552 283472 Requested by: MR Owen Davies

Your Scheme/Reference:

in proximity to 132kV underground cables and 132kV overhead lines IMPORTANT NOTICES

- These plans are provided as a general guide only. Services or recent additions to the network may not be shown.
 - Cables, overhead lines & substations owned by other electricity network owners or private companies may be present but will not

* Advice should be sought from the Western Power Distribution General Enquiries team for any work that is to take place

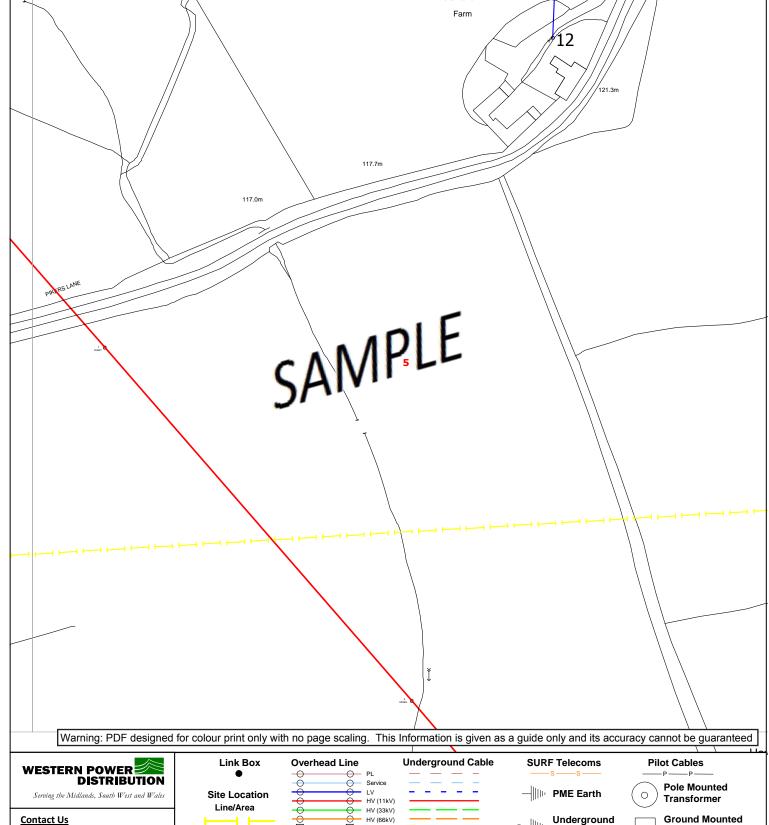
- You should always verify exact locations of cables using a cable locator and by careful use of hand tools in accordance with HSE quidance note HSG47.
- When working within 10m of any overhead electric line you should follow the requirements of HSE Guidance Note GS6.
- For further advice on working near our electricity cables or lines, call our General Enquiries number.

Report damage immediately - KEEP EVERYONE AWAY FROM THE AREA East Mids 0800 056 8090 West Mids 0800 328 1111 South Wales 0800 052 0400 South West 0800 365 900

Crown Copyright @ All Rights Reserved. Ordnance Survey Licence numbers: EL27318X, 100024877 and 100021807. WPD Copyright: This copy has been made by or with the authority of Western Power Distribution (WPD) pursuant to Section 47 of the Copyright Designs and Patents Act 1988 unless that Act provides a relevant exception to copyright the copy must not be copied without the prior permission of the copyright owner

Approx. Scales: 1:1250 Area or Circle dig site 1:500 Line dig site

Plans generated by DigSAFE Pro (tm) software provided by PelicanCorp



Mapping Enquiries:

All areas 0121 623 9780 **General Enquiries:**

0845 724 0240 Midlands South Wales 0845 601 3341 South West 0845 601 2989

Date Requested: 02/05/2014 Job Reference:

Site Location: 429552 283472 Requested by: MR Owen Davies

Your Scheme/Reference:

Underground HV (132kV) Earth Transformer

* Advice should be sought from the Western Power Distribution General Enquiries team for any work that is to take place in proximity to 132kV underground cables and 132kV overhead lines

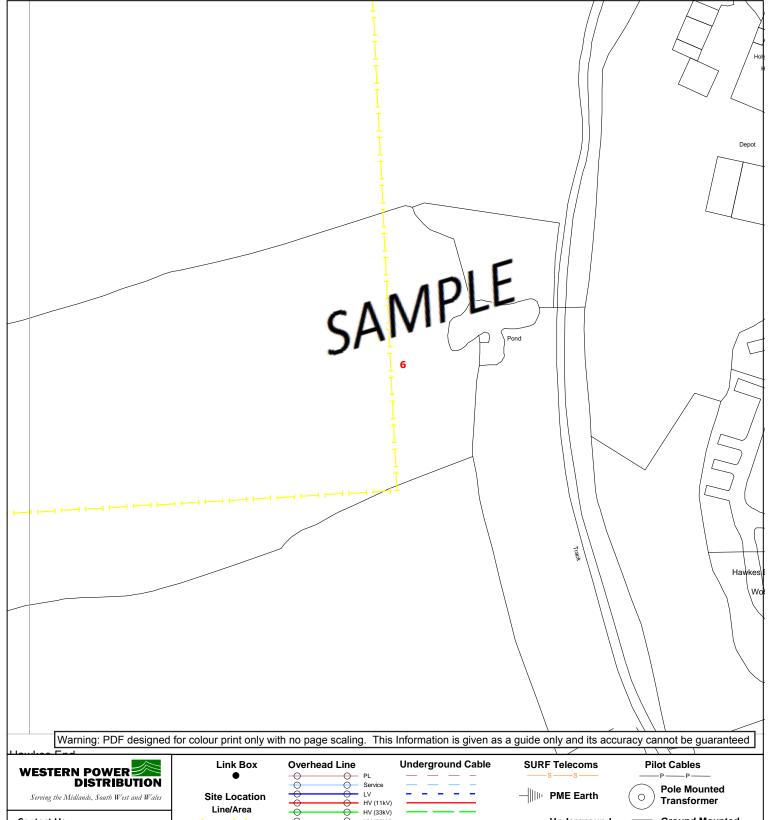
IMPORTANT NOTICES

- These plans are provided as a general guide only. Services or recent additions to the network may not be shown.
- Cables, overhead lines & substations owned by other electricity network owners or private companies may be present but will not
- You should always verify exact locations of cables using a cable locator and by careful use of hand tools in accordance with HSE quidance note HSG47.
- When working within 10m of any overhead electric line you should follow the requirements of HSE Guidance Note GS6.
- For further advice on working near our electricity cables or lines, call our General Enquiries number.

Report damage immediately - KEEP EVERYONE AWAY FROM THE AREA East Mids 0800 056 8090 West Mids 0800 328 1111 South Wales 0800 052 0400 South West 0800 365 900

Crown Copyright @ All Rights Reserved. Ordnance Survey Licence numbers: EL27318X, 100024877 and 100021807. WPD Copyright: This copy has been made by or with the authority of Western Power Distribution (WPD) pursuant to Section 47 of the Copyright Designs and Patents Act 1988 unless that Act provides a relevant exception to copyright the copy must not be copied without the prior permission of the copyright owner

Approx. Scales: 1:1250 Area or Circle dig site 1:500 Line dig site



Contact Us **Mapping Enquiries:**

All areas 0121 623 9780 **General Enquiries:**

0845 724 0240 Midlands South Wales 0845 601 3341 South West 0845 601 2989

Date Requested: 02/05/2014 Job Reference:

Site Location: 429552 283472 Requested by:

MR Owen Davies

Your Scheme/Reference:

Ground Mounted Underground HV (66kV) HV (132kV) Earth Transformer

* Advice should be sought from the Western Power Distribution General Enquiries team for any work that is to take place in proximity to 132kV underground cables and 132kV overhead lines

IMPORTANT NOTICES

- These plans are provided as a general guide only. Services or recent additions to the network may not be shown.
- Cables, overhead lines & substations owned by other electricity network owners or private companies may be present but will not
- You should always verify exact locations of cables using a cable locator and by careful use of hand tools in accordance with HSE quidance note HSG47.
- When working within 10m of any overhead electric line you should follow the requirements of HSE Guidance Note GS6.
- For further advice on working near our electricity cables or lines, call our General Enquiries number.

Report damage immediately - KEEP EVERYONE AWAY FROM THE AREA East Mids 0800 056 8090 West Mids 0800 328 1111 South Wales 0800 052 0400 South West 0800 365 900

Crown Copyright © All Rights Reserved. Ordnance Survey Licence numbers: EL27318X, 100024877 and 100021807. WPD Copyright: This copy has been made by or with the authority of Western Power Distribution (WPD) pursuant to Section 47 of the Copyright Designs and Patents Act 1988 unless that Act provides a relevant exception to copyright the copy must not be copied without the prior permission of the copyright owner

Approx. Scales: 1:1250 Area or Circle dig site 1:500 Line dig site

Our emergency numbers are:

East Midlands EMERGENCY 0800 056 8090

West Midlands

EMERGENCY 0800 328 1111

South Wales

EMERGENCY 0800 052 0400

South West EMERGENCY 0800 365 900

WESTERN POWER
DISTRIBUTION
Serving the Midlands, South West and Wales

Avoidance of Danger from Electricity Overhead Lines and Underground Cables





Avoidance of Danger from Electricity Overhead Lines and Underground Cables

Introduction

In the UK on average, 20 people are killed and 400 people are injured as a result of coming into contact (or close proximity)—with electricity overhead lines and underground cables.

Although electric shock is the first thing that people associate with coming into contact with our network, those who have witnessed the effects of damage to our system are shocked by the amounts of heat, light and noise that are the result of an electrical flashover.

In the Midlands, South West and South Wales, Western Power Distribution (WPD) have also had to attend to incidents where people have accidentally made contact with one of our live electricity overhead lines or damaged an underground cable.

A significant number of these accidents occurred whilst people were working in the vicinity of overhead and underground electrical apparatus and this booklet has been produced to provide general guidance on how you and your employees can avoid becoming one of these statistics.

PLANNING YOUR WORK.

It makes separa to consider your safety while in the vicinity of our makes searly in your planning process as possible.

on of the first things you should do whenever you are planning your work is taking place on public (e.g. highways and footpaths) or on private land.

For instance, take a good look around your site to see if there are any visible overhead lines. You should also bear in mind that we have a very extensive network of underground cables, and we are always happy to supply a plan from our Map Response Team who can be contacted via the following;

Tel: 0121 623 9780 Fax: 0121 623 9223

WPDMapResponse@westernpower.co.uk

An online mapping service is available at www.westernpower.co.uk/locationplans

It is always safer to assume that there are underground cables present in the ground until you have proven otherwise.

WORKING IN THE VICINITY OF UNDERGROUND CABLES

Having obtained copies of our network maps, it is important to recognise that in most cases there will be no surface indication of the presence of our underground cables. We therefore advise that you take the following actions;

- Make sure that you have up-to-date copies of our cable record plans ON SITE not back in the office.
- Don't assume that these plans are to scale if they have been faxed or copied.
- Make sure that a competent person using a Cable Avoida (CAT) locates all of the cables shown on these plans.
- Mark the locations of cables on the ground surface with waterproof road paint or other permanent marker.
- Always assume that our cables are live unless we have informed you, in writing, otherwise.
- By hand, dig trial holes to locate the exact position of all cables. Always use a spade or shovel never use a pick, fork or power tool push the spade or shovel into the ground applying foot pressure.
- Look out for ducts, marker tape or tiles but do not rely on these. Even if a cable was originally laid in a duct or with a marker tape, these may have been removed during other excavations at a later date along all or part of the route.
- Brief all people working in the vicinity of the presence and location of all underground cables.

UNDER NO CIRCUMSTANCES SHOULD YOU ATTEMPT TO WORK ON, OR INTERFERE WITH, ANY OF OUR UNDERGROUND CABLES. The only people qualified to work on our cables are our operatives who have each been specifically authorised, in writing, to do so.

Please also be aware that:

- Cable record plans are not guaranteed to be completely accurate. Kerb Lines, roads and buildings may have been moved or altered since the cables were laid.
- Cables should ordinarily be at least 450mm deep but don't assume this to be the case where you are working ground levels could have changed.
- Not albervice cables are shown on record plans, so look for able running down poles and bear in mind that all buildings, tree lights and road furniture are likely to have cables running to them. Cables feeding street furniture may be relatively shallow near to the furniture.
- Cables do not run in straight lines. They often "snake" through the ground avoiding surface and buried obstacles that may not be visible to you.
- Cables are flexible and can change direction and depth abruptly for this reason never use mechanical excavators within 0.5m of any underground electricity cable even if you have located it with trial holes.
- No attempt should be made to break out concrete surrounding a cable. Please contact us immediately on our general enquiries number and we will discuss the options for safe working which may include making the cable dead or you moving your work site if possible. If we need to make the cable dead we may need to provide our customers with two weeks notice of the power interruption.
- Our cables and joints are not designed to act as steps or to be left unsupported. If you remove support from any cable, you will need to support it using temporary hangers at not more than 0.5m intervals.
- When backfilling, please consolidate the ground under the cables, cover the cable with soil free of stones or with stone dust and replace any cable marker tiles, ducts and tape.

must immediately clear the area of personnel, because the cable could still be live, or become live again.

If a machine is still in contact with the cable, instruct the driver to IUMP clear. Do not touch any part of the machine.

Please contact us on our emergency numbers immediately and tell us what has happened. Please be ready to provide us with a contact telephone number and an accurate location or set of directions - this will help us in getting our staff to site quickly to minimise my dan er and lessen the disruption to your work.

Our emergency numbers are:

East Midlands 0800 056 8090

EMERGENCY

West Midlands 0800 328 1111

EMERGENCY

South Wales 0800 052 0400

EMERGENCY

South West 0800 365 900

EMERGENCY

Please report any damage to a cable, however superficial it might seem. The cable may not fail at the time of damage, but it could fail later, causing danger to our staff and other contractors, disruption to our customers' supplies, and also – if we trace the damage back to you – a very much larger repair bill.

WORKING IN THE VICINITY OF OVERHEAD LINES

UNDER NO CIRCUMSTANCES SHOULD YOU ATTEMPT TO WORK ON, OR INTERFERE WITH ANY OF OUR OVERHEAD LINE EQUIPMENT OR SERVICE WIRES. The only people qualified to work on this equipment are our operatives who have each been specifically trained and authorised in writing, to do so.

Overhead lines have the advantage that, unlike underground cables, they can easily be seen.

- Always assume that our lines are live unless we have informed you otherwise in writing.
- We will be able to advise you about the type and voltage of the lines in question and provide you with information about the clearances that you must adhere to during your work.
- If you are in any doubt about whether the lines in question are power or telephone (this is a very common mistake) please ask us.
- In some circumstances, we may be able to temporarily shroud low voltage overhead lines and services running to buildings if you need to work in the vicinity e.g. for scaffolding erection, fascia repairs and painting work on domestic properties. We don't normally charge for the shrouding of overhead lines, but please give us as much notice as possible.
- If you think that you will be working close to our overhead lines and they need shrouding please don't start work until we have agreed what needs to be done and all safety precautions are in place.
- Please note that it is not technically possible to shroud high voltage lines, so if you cannot avoid working near to our high voltage lines, contact us and we will be happy to meet you to discuss safe alternatives.

7

If it is decided that work can go ahead in the vicinity of our lines, and there is a risk of you infringing the safety clearances from the lines, you have a responsibility to erect safety barriers to segregate your works from the area around the lines. The detailed requirements for these barriers are provided in the HSE document GS6 'Avoidance of Danger from Overhead Lines' and as a summary they should consist of;

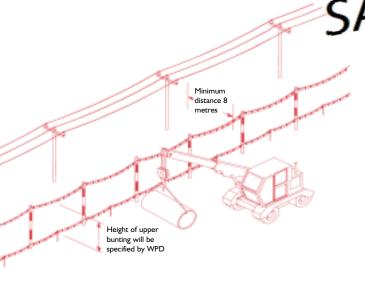
Red and white painted posts erected at 6m intervals, with coloured bunting stretched between their tops, supplemented by low level bunting erected at 1m above ground level, supported at 3m intervals on red and white painted posts. This is shown below.

The supports may be supported by rubble or concrete filled barrels or buried directly in the ground.

Danger Notices should be fixed to all of your high level supports.

The ground enclosed within these barriers is best regarded as "dead ground" in which all foot and vehicular traffic is forbidden, in all circumstances, for the duration of your work.

Where it is necessary for foot and vehicular traffic to pass under the line, you will need to form a marked access way between the barriers as shown below.

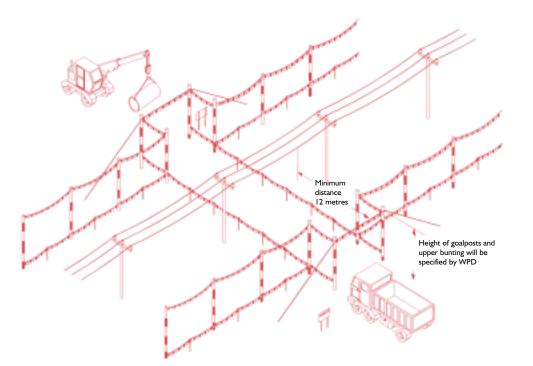


- We are able to advise you on the height of the barriers and any additional clearances necessary if you are using large plant on your site.
- Any bunting, ropes and lanyards used should be made from an insulating material.
- These barriers should be erected parallel to the line at a minimum distance of 8m horizontally from the outermost conductor of the line.

- Minimum distance 8 metres

 Height of goalposts and upper bunting will be specified by WPD
- This access way should comprise of bunting erected Im above ground, supplemented by high level "goal-posts" erected at either end.
- The goal post cross bars should be rigid, made of insulating material and positioned in a location and at a height specified by us.

- The access route should be as narrow as possible and should not normally exceed 10m in width.
- If it is necessary to make the access route wider than this, you may find it impractical to use rigid cross bars, so you may use a tensioned rope and bunting instead. If you use rope and bunting as a cross bar, you should move the entrance to the access route out to a minimum distance of 12m from the outermost conductor of the line. This is to allow for any stretching of the rope if bulled by you had to



- If you decide to use steel wire rope to support the barrier, this must be effectively connected to earth at both ends.
- You should also install Danger Notices at all probable directions of approach and clearly display the cross bar height.
- If you are working at night, or in conditions or poor visibility, you should ensure the area is well lit and that the lines are clearly visible.
- Whatever measures you take, you should ensure that everyone working in the vicinity of lines is briefed about the risks and what safety measures are in place. Do not permit anyone to carry long objects, especially scaffold poles, ladders and irrigation pipes in the vicinity of lines.
- You should ensure that all shrouding, barriers and signs are regularly inspected and maintained so that they remain effective.
- Overhead power lines are not normally insulated and electricity at High Voltages may jump, so a dangerous situation can arise just from a close approach.
- Cranes and Excavators working near overhead lines are at increased risk because of the possibility of the jib/arm slewing or being raised into the line, or the load swinging into the line. You may therefore also need to fit plant and vehicles with restricting chains etc. to physically restrain their operation we can advise on this if you wish.
- If you are planning to carry out tree cutting or arboriculture work in the vicinity of our overhead lines, you need to be aware that this is a complex, high risk activity and we recommend that you employ a competent tree surgeon, who complies with all of the requirements of HSE leaflet AFAG804: 'Electricity at Work: Forestry and Arboriculture'.

If contact is made with an overhead line, you must immediately clear the area and suspend all work within 50m of the damage because the line could still be live, or become live again.

The operator of a machine that is in contact with an overhead line should:

if the machine is still operable and the operator is still in the cab:

provided that you do not risk breaking the line or dragging it. the ground, immediately lower the raised parts of the mathematical USING ONLY THE CONTROLS IN THE CALLALATOR (Five the vehicle clear of the line.

contact us immediately on our emergency number so that we can check the lines.

if the machine is not operable, cannot be driven clear of the line or there is a risk that doing so will break the line or drag it to the ground:

stay in the cab.

contact your site manager or us immediately on our emergency number by radio or mobile phone or as soon as possible by any other method.

instruct everyone outside the vehicle not to approach it.

do not exit the cab until given confirmation BY WPD PERSONNEL that it is safe to do so.

if the machine is inoperable or cannot be driven free and there is risk of fire or other immediate hazard:

JUMP clear of the vehicle, avoiding simultaneous contact with any part of the machine and the ground.

try to land with your feet as close together as possible.

where possible, continue to move away from the vehicle using "bunny hops" with your feet together until at least 15m from the vehicle.

instruct other people in the vicinity not to approach the vehicle.

contact us immediately on our emergency number.

do not return to the vehicle until given confirmation BY WPD PERSONNEL that it is safe to do so.

Whatever the circumstances please contact us on our emergency numbers immediately and tell us what has happened. Please be ready to provide us with a contact telephone number and an accurate location or set of directions – this will help us in getting our staff to site quickly to minimise any danger and lessen any disruption to your work.

Our emergency numbers are:

East Midlands 0800 056 8090

EMERGENCY

West Midlands 0800 328 1111

EMERGENCY

South Wales 0800 052 0400

EMERGENCY

South West 0800 365 900

EMERGENCY

Please report any damage or contact no matter how minor they may seem to you at the time. The damage may not cause a serious problem at the time of damage, but it could fail later, causing danger to our staff and members of the public, disruption to our customers' supplies, and – if we trace the damage back to you – a large repair bill.

MORE INFORMATION

For your information, we are legally obliged to report all contact with our system to the Department of Trade and Industry, and, if you are an employer, you may be obliged to report incidents involving your staff or contractors to the Health & Safety Executive. Even if no one is hurt, you could be prosecuted for failing to report such an incident.

More detailed general information on this subject is available in the following publications from the Health and Safety Executive (HSE);

AFAG804 - Electricity at Work: Forestry and Arboricults AFAG804 require more site-specific informations. at your location please contact us on our general enquiries numbers.

Our general enquiries numbers are;

0845 724 0240 East/West Midlands

General Enquiries

South Wales 0845 601 3341

General Enquiries

South West 0845 601 2989

General Enquiries

FINALLY...

Please, always remember that electricity cables and lines can be very dangerous - the general rule is STAY AWAY and stay safe.

NOTES

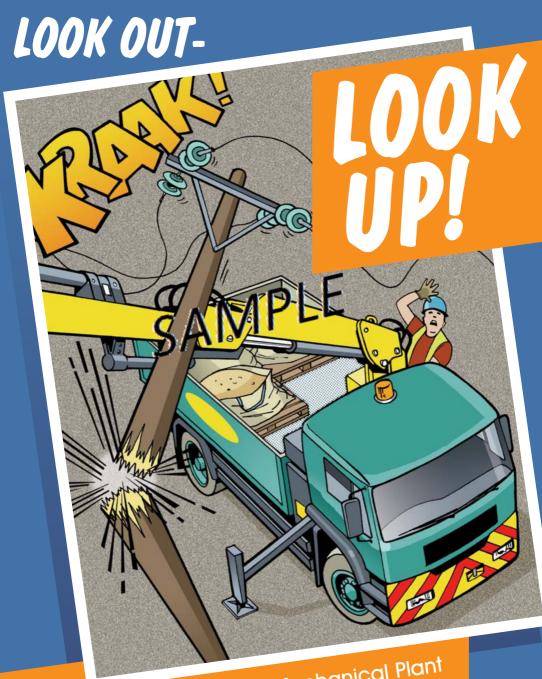


This booklet is issued by the Safety Team

Western Power Distribution (East Midlands) plc. Registered in England and Wales No. 2366923 Western Power Distribution (West Midlands) plc. Registered in England and Wales No. 3600574 Western Power Distribution (South Wales) plc. Registered in England and Wales No. 2366985 Western Power Distribution (South West) plc. Registered in England and Wales No. 2366894 Registered Office: Avonbank, Feeder Road, Bristol BS2 0TB

Printed on material sourced from sustainable forests and TCF. Printed using vegetable/mineral oil based environmentally friendly inks.

2012. 3rd issue



A Guide to the Safe Use of Mechanical Plant in the Vicinity of Electricity Overhead Lines





The Safe Use of Mechanical Plant in the Vicinity of Electricity Overhead Lines

Introduction

Every year in the UK on average, two people are killed and many more are injured when mechanical plant and machinery comes into contact or close proximity to overhead electricity lines.

This booklet has been produced for anyone who uses mobile plant, (such as Hiabs, MEWPs, Tipper Lorries and Trailers, Grab Lorries, Concrete Conveyors and Excavators) for short duration work and provides general guidance on how to avoid becoming part of these statistics.



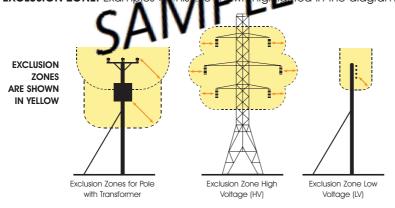
1 BEFORE STARTING WORK

 Overhead lines have the advantage that they can easily be seen, so before you set up your vehicle or plant always:

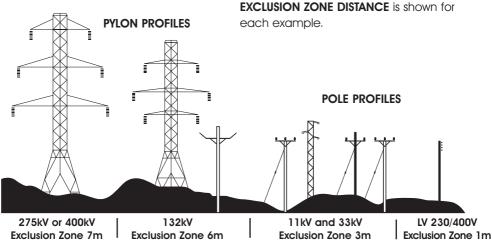
- If you are working at the strong conditions of poor visibility, you should use spotlights or a town to carefully check that there are no overhead lines within your vehicle's reach.
- Always assume that our lines are live unless we have informed you otherwise in writing.
- If you are in any doubt about whether the lines in question are power or telephone (this is a very common mistake) – always assume that they are power lines and are live.
- It is not normally practical for electricity companies to shroud high voltage conductors and even when low voltage conductors are shrouded, the shrouding is not designed to protect against contact by mechanical plant – again, always assume the lines are live.

2 EXCLUSION ZONES

- Overhead power lines are not normally insulated and so any contact can result in serious or fatal injuries.
- Electricity at high voltages can also jump gaps with no warning whatsoever, so it is also dangerous to let your plant approach too close to a line.
- The distance that electricity can jump depends on the voltage of the line.
 The higher the voltage, the further you must stay away from the line and any other equipment that may be fitted to the pole or bylor. This distance is called the EXCLUSION ZONE. Examples of this are the will high lighted in the diagram below.



- You must not allow any part of your plant to enter the EXCLUSION ZONE.
- The diagram below shows typical types of overhead lines and provides a guide to help you assess the line voltage of lines on wooden poles or steel pylons. The minimum

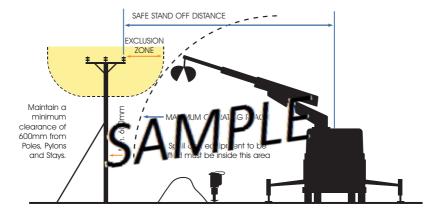


 Please note that these are absolute minimum distances that should under no circumstances be infringed. If you do – it could prove fatal.

- As well as staying away from the lines or equipment, you should also stay at least 600mm away from any part of poles, pylons and stay wires.
- Please remember that is for guidance only, and if you are in any doubt, please call us for advice before setting up your plant or starting work.

3 STAND OFF DISTANCES

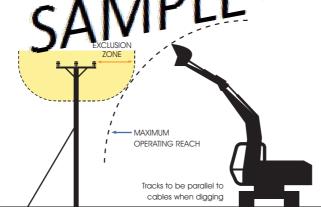
- If there are power lines in the vicinity of your work the best way to make sure you stay out of the EXCLUSION ZONE is to position your vehicle at a SAFE STAND OFF DISTANCE so that, even when fully extended, no part of it can accidentally reach inside the EXCLUSION ZONE.
- This SAFE STAND OFF DISTANCE can be calculated by adding the EXCLUSION ZONE distance for the appropriate voltage of the line to the Maximum Operating Reach of your vehicle. This is shown in the diagram below.



If you position your vehicle outside of the SAFE STAND OFF DISTANCE, there is no risk
of accidental contact with the lines and no danger of electricity jumping from the
line to your vehicle.



- You may not be able to achieve either of these options, so, as a last resort, if you cannot avoid operating large items of plant in the vicinity of lines, you MUST make sure that the plant is fitted with restraints to ensure that the EXCLUSION ZONE cannot be entered. These restraints may be electrical or hydraulic systems fitted to the plant, or mechanical devices such as chains.
 - Please seek advice from the plant manufacturer for more information on choices available for your particular item of plant.
- If you are using a mechanical excavator to dig parallel to the line, it is good practice
 to position the excavator with the tracks or wheels per allel to the line, so as you move
 along the excavation the SAFE STANT DE D. T. NCF Feasily maintained.



- Care must also be taken to avoid non-mechanical equipment, (e.g. scaffold poles, ladders and long loads such as lengths of steel or timber) from entering the EXCLUSION ZONE.
- Always maintain at least 600mm clearance from your plant to any of our poles, stay wires or pylons. Any contact with these by your plant could cause the line to break and fall to the ground.

4 EMERGENCY PROCEDURES

If contact is made with an overhead line, you must immediately clear the area and suspend all work within 50m of the damage because the line could still be live, or become live again.

The operator of a machine that is in contact with an overhead line should take the following steps:

If the machine is still operable:

 lower any raised parts that are controlled from the driving position and/or drive the vehicle clear of the line, as long as neither of these actions risk breaking the line or dragging it to the ground.

If the machine is not operable or cannot be driven clear of the line:

- stay in the cab.
- contact your site manager or us immediately by radio or mobile phone or as soon as possible by any other method.
- instruct everyone outside the vehicle not to approach it.
- do not exit the cab until given confirmation BY WPD PERSONNEL that it is safe to do so.

If the machine is inoperable or cannot be driven free and there is risk of fire or other immediate hazard:

- jump clear of the vehicle, avoiding simultaneous contact with any part of the machine and the ground.
- try to land with your feet as close together as possible.
- where possible, continue to move away from the vehicle using "bunny hops" with your feet together until at least 15m from the vehicle.
- instruct other people in the vicinity not in copil cosh the vehicle.
- do not return to the vehicle until the confirmation BY WPD PERSONNEL that it is safe to do se

Whatever the circumstances please contact us on our emergency numbers immediately and tell us what has happened.

Please be ready to provide us with a contact telephone number and an accurate location or set of directions – this will help us in getting our staff to site quickly to minimise any danger and to reduce any disruption to your work.

OUR EMERGENCY NUMBERS ARE:

East Midlands: 0800 056 8090

West Midlands: 0800 328 1111

South Wales: 0800 052 0400

South West: 0800 365 900

Please report any damage or contact no matter how minor they may seem to you at the time. Whilst the damage may not cause a serious problem at the time of contact it could fail later, causing danger to our staff and members of the public, disruption to our customer's supplies, and – if we trace the damage back to you – a larger repair bill!

5 MORE INFORMATION

- Proximity Warning Systems (such as Wire Watcher see wirewatcher.co.uk for information) may be fitted to your vehicle. Never turn these devices off or disable them in any way.
- Take note of any warnings these proximity warning systems may provide but do not use the presence of such devices as a reason not to follow the advice provided in this leaflet.
- For your information, we are legally obliged to report all contact with our system to the Department of Trade and Industry (DTI), and, if you are an employer, you may be obliged to report incidents involving your laft or contactors to the Health & Safety Executive (HSE). Even if no day is 100 yourself being prosecuted for causing a dangeral specific per

6 FURTHER READING

For advice related to signing and guarding at longer term work sites please also refer to WPD booklet "Avoidance of Danger from Electricity Overhead Lines and Underground Cables"

More detailed general information on this subject is available in the following publications from the Health and Safety Executive (HSE):

GS6 – Avoidance of Danger from Overhead Lines.

HS(G) 47 – Avoiding Danger from Underground Services.

AFAG 804 – Electricity at Work: Forestry and Arboriculture.

If you require more site-specific information relating to our equipment at your location please contact us on the relevant **GENERAL ENQUIRIES NUMBER**:

East/West Midlands: 0845 724 0240

South Wales: 0845 601 3341

South West: 0845 601 2989

FINALLY.... Please, always remember that electricity overhead lines can be very dangerous – **the general rule is STAY AWAY** and **STAY SAFE!**

For the Safe Use of Mechanical Plant in the Vicinity of Electricity Overhead Lines ALWAYS FOLLOW THESE SIMPLE RULES – THEY COULD SAVE YOUR LIFE!

- Treat all overhead lines as live and dangerous
- Any contact may be fatal or cause very serious injuries
- Electricity can jump gaps
- Before you set up or use plant near to lines STOP and LOOK UP
- Take special care and use lights in the dark or poor light conditions
- If there are lines in the vicinity of your work stay well away
- Set up your plant with care to reduce the chance of contact
- If you are unsure of new coring
 please ask us inflore to ring work

Our general enquiry numbers are:

East/West Midlands: 0845 724 0240 South Wales: 0845 601 3341 South West: 0845 601 2989

Our emergency numbers are:

East Midlands: 0800 056 8090
West Midlands: 0800 328 1111
South Wales: 0800 052 0400
South West: 0800 365 900

This booklet is issued by the Safety Team: wpdsafetyhelpline@westernpower.co.uk



Serving the Midlands, South West and Wales

Western Power Distribution (East Midlands) plc. Registered in England and Wales No. 2366923 Western Power Distribution (West Midlands) plc. Registered in England and Wales No. 3600574 Western Power Distribution (South Wales) plc. Registered in England and Wales No. 2366985 Western Power Distribution (South West) plc. Registered in England and Wales No. 2366894 Registered Office: Avonbank, Feeder Road, Bristol BSZ 0TB