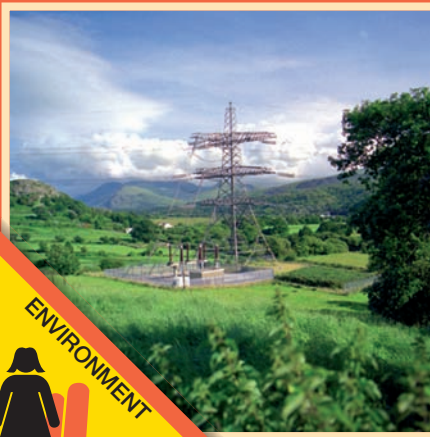




A practical guide to **Working Safely on Substations**



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A practical guide to Working Safely on Substations



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This booklet is not a substitute for any regulations, codes of practice, or health and safety policy.

Artwork, designed and produced by Peter Smith Design, Derby, UK.

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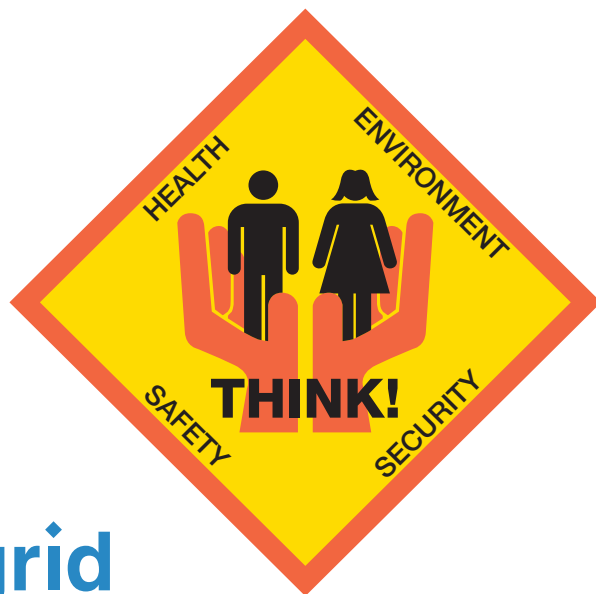
Working Safely

**“This is the way we do things in National Grid...
because it keeps us safer”**

Golden Rules

are a fundamental building block for our Road to Zero. They focus on critical areas of the business where safe behaviours by managers, employees, contractors and agency staff are essential to safeguard ourselves and the public. They cover behaviours that will prevent the most serious injuries. We must all read and act upon them. You should also remember that non-compliance with any of the rules will result in immediate investigation and the appropriate action being taken.

**“Safety in everything we do remains
of paramount importance”**



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National Grid's Golden Rules

Maintenance Delivery Electricity

Safety Protection Systems and Devices

We NEVER deliberately disarm, immobilise or remove any safety protection system or device unless properly authorised.

Operation of Vehicles

We NEVER endanger others or ourselves by operating a vehicle unsafely or without the appropriate licence and authority.

Underground Services

We ALWAYS determine and mark the location of underground services and take actions to prevent damage that could cause harm.

Personal Protective Equipment

We ALWAYS use the required personal protective clothing and equipment.

Fall Prevention

We ALWAYS use the required safety equipment to prevent a fall from height.

Permits and Authorisations

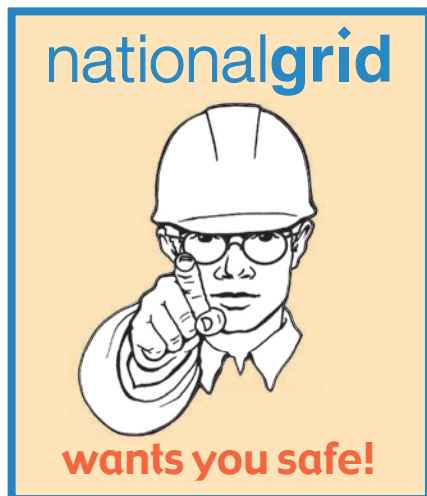
We NEVER carry out any work unless we have the necessary current safety documentation, authorisations, permits and licences.

Work Area Control

We ALWAYS use the required barriers and safety equipment to define the work area and make it safe and secure. Safe distances are always established and maintained.

**Each and everyone of us has individual and collective
responsibility to uphold our GOLDEN RULES.**

Your health and safety are vital to National Grid



You can help us achieve this!

Report all accidents and near misses.

You are required to report all 'near miss' incidents as well as accidents to National Grid.

A near miss is anything which could have resulted in injury or financial loss. For example, if you see or trip over a piece of earthtape sticking out from the ground but do not injure yourself, or others - this is a near miss as it could have caused injury or loss.



At National Grid, health and safety means following a sound policy to help prevent ill health and injury.

You play an important role when it comes to establishing a safe working environment.

By law, working safely is one of your responsibilities.

According to the Health and Safety at Work Act 1974, 'It shall be the duty of every employee while at work to take reasonable care for the health and safety of himself and of other persons who may be affected by his acts or omissions at work'.

National Grid, it's contractors and your co-workers are counting on you!

It's up to you to:

- Follow all safety rules that relate to your duties and responsibilities.
- Minimise the risk of injury to yourself and others.
- Minimise the risk of damage to property.
- Use protective clothing and safety equipment properly.
- Co-operate with your employer and any other person to ensure health and safety obligations are met.



Before you act, think!

Before you start work:

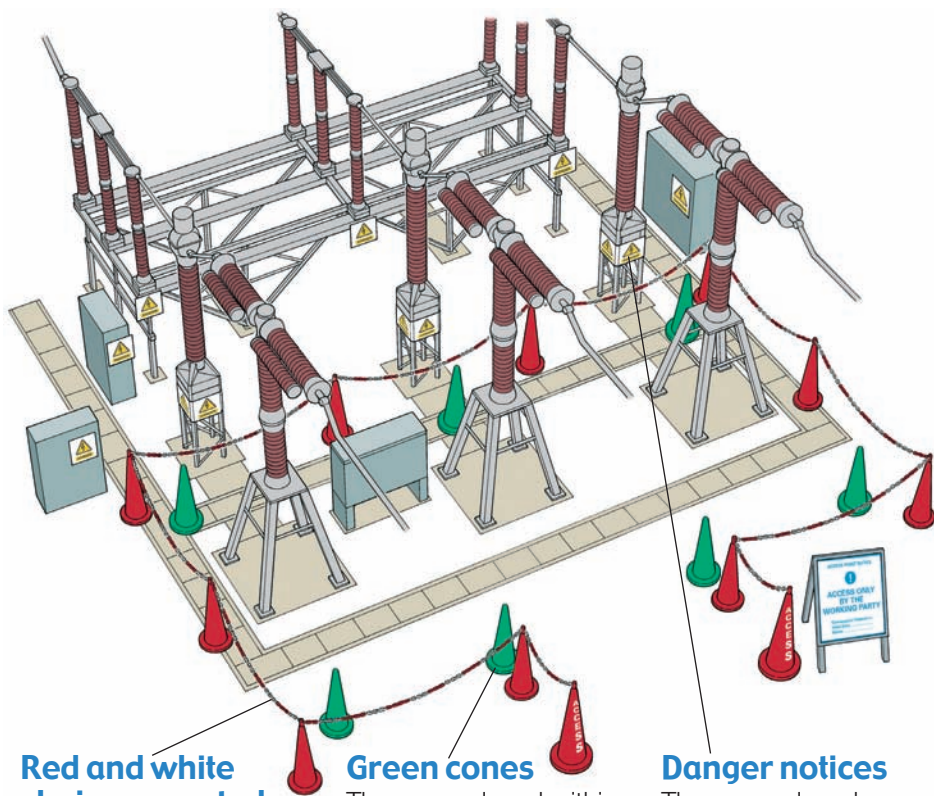
1. Think safe.
2. Identify what you are going to do.
3. Understand - and make sure that everyone working on the job understands:
 - what you are going to do
 - where you are going to do it
 - the limits of the work or work area.
4. Discuss any concerns with your supervisor.

Learn more about your responsibilities...



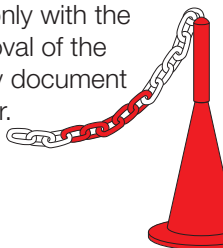
Start by getting the 'lay of the land'

Various markers and signs indicate which areas are safe to work in and which ones are not. Here are some items to look for.



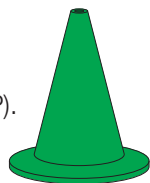
Red and white chain supported by red cones

This designates a safe working area. Authorised work may be conducted only in these areas - and only with the approval of the safety document holder.



Green cones

These are placed within a safe working area. These indicate that the area within the red and white chain is safe. This must not be moved or changed. If a cone is blown over, speak to a Senior Authorised Person (SAP).



Danger notices

These are placed outside safe work areas to warn you it is unsafe.

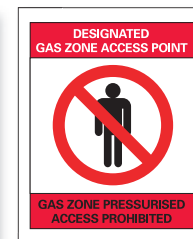
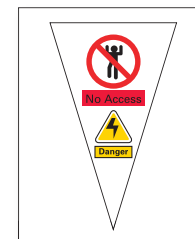


Always obey safety signs and symbols

They are there to protect you and your colleagues.

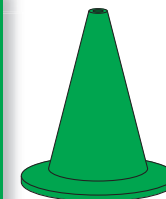
Prohibition (red and white)

They mean 'Don't do'. Some examples are:



Safe condition (green and white)

They tell you the safe way to do something or give first-aid information. Some examples are:



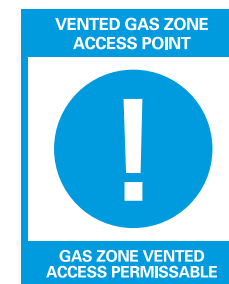
Warning (yellow and black)

They warn you that a hazard exists. Some examples are:



Mandatory (blue and white)

They instruct you that you must do the safety operation shown. Some examples are:



Don't forget to 'dress for success'!

For access to certain areas, you and your working party will need to wear personal protective equipment (PPE).

This may include:

A helmet

to protect your head.

Ear defenders

to protect your ears from excessive noise.

Gloves

made of mesh, leather or other materials, depending on the job.

Boots

or other safety footwear to protect against electricity, heavy objects and other hazards. (boots must have ankle support)

Eye protection

- that is, goggles or safety glasses.

Fall-arrest equipment

to protect you from falls from height.

Overalls or other clothing

to protect your body.

If you have any doubts about what protective equipment you need to wear at a particular site, ask your supervisor before entering.

Safe access to and from the point of work

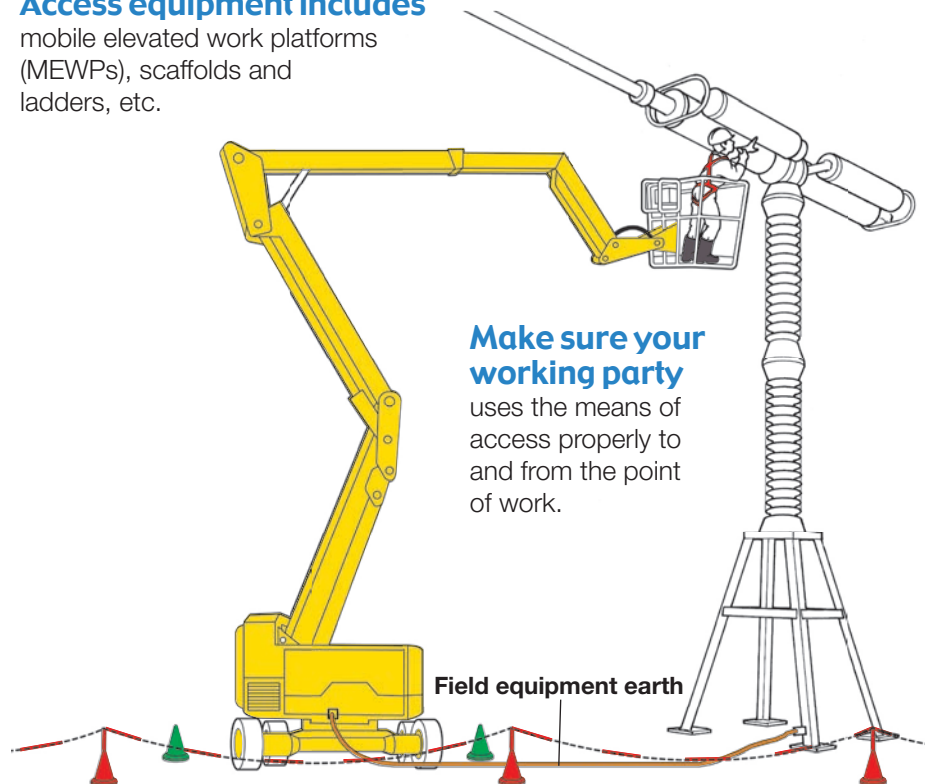
Ensure a means of access that's right for the job, as identified by the risk assessment/method statement provided by your company.

Access equipment includes

mobile elevated work platforms (MEWPs), scaffolds and ladders, etc.

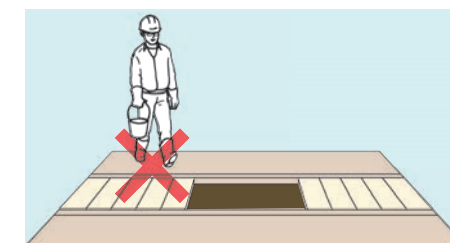
Make sure your working party

uses the means of access properly to and from the point of work.



Access equipment must only be moved on site

to and from the safe work area on the specific instructions of the SAP.



Don't step on concrete trench covers.

As a Competent Person, you may be in charge

of work and your working party. As the Person in Charge (PIC), it's up to you to take the lead when it comes to safety.

Before work begins

- Make sure you're familiar with the work to be done and the necessary equipment, such as scaffolds, cranes or vehicles.
- Don't let work begin until you have received the appropriate Safety Document.

Before the Safety Document is issued

The SAP will ensure that a safe work area is established, usually using red cones and red and white chain.

Tool Box Talk

Before starting work you should discuss the following with your working party:

- details of the work and work place
- The position of demarcation showing limits of safe access
- earthing arrangements
- all other documents received, for example Risk Assessments and Method Statements
- equipment and PPE to be used
- each individual's personal task
- how others are to be kept safe
- actions to be taken in an emergency.



When receiving the Safety Document

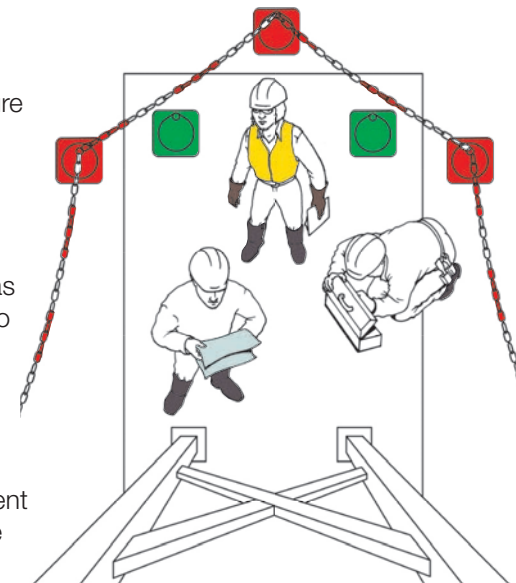
- Read the document. Be sure you understand it. If you don't, ask the SAP.

- Keep all the documents and keys issued to you in a safe place.

(If your Safety Document is a Permit for Work and additional work needs to be done, talk to your SAP. The details of the additional work will be added by the SAP in Part 6 of the Permit for Work).

Before and during work

- Record everyone's name in the Working Party Register. Make sure everyone understands the site's conditions and limitations.
- Make sure you know which equipment to work on.
- Be sure working conditions are as you expect - and that you can do the necessary work within the safe work area.
- Do only the work described in your documents.
- Ensure a safe working environment and work methods. Only use the correct tools and equipment for the job.
- Ensure that everyone uses the appropriate personal protective equipment.
- Make sure people nearby are not put in danger from your work.
- Make sure safe means of access and egress are used.



Clearing the work area

Stop all work and instruct your working party to leave the work area if:

- you need to leave the site
- any hazards or other conditions arise that aren't covered by the Safety Document
- the job is completed or if the Safety Document is to be 'cleared'.



Read on...

A Person in Charge (PIC) has other responsibilities, too!

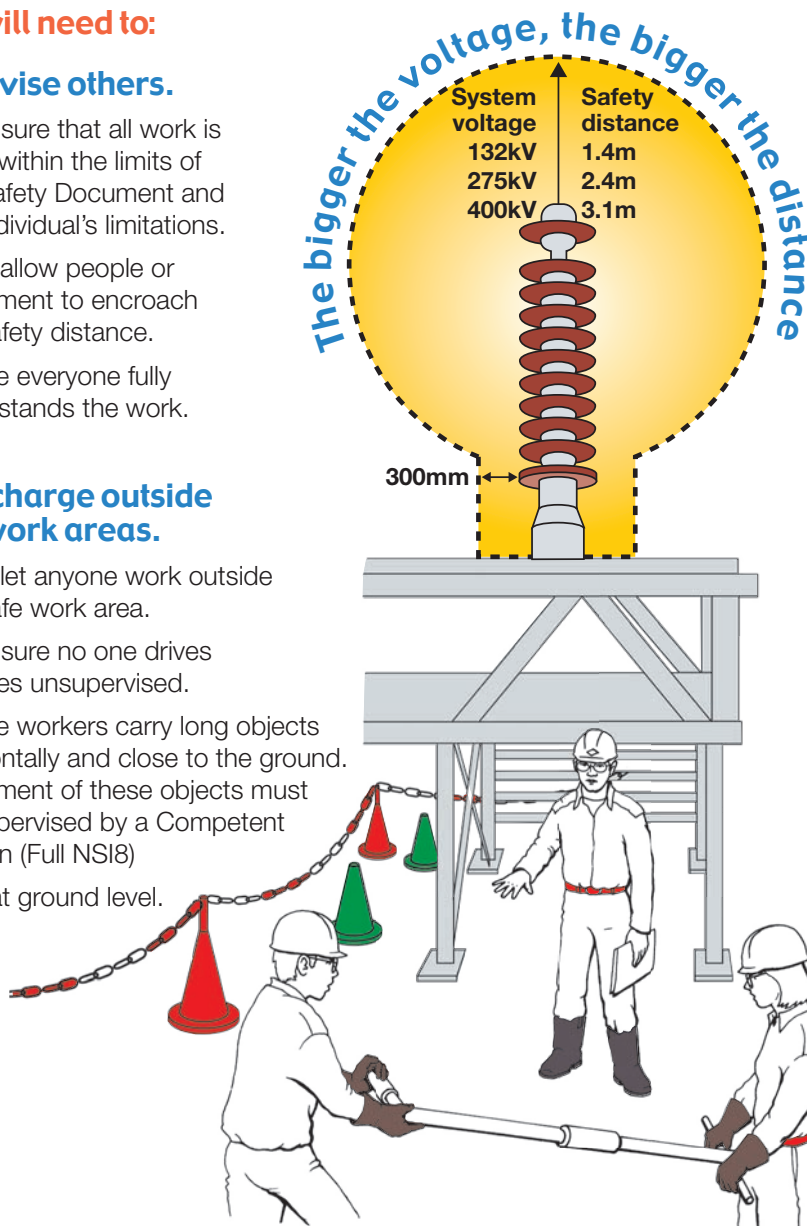
You will need to:

Supervise others.

- Make sure that all work is done within the limits of the Safety Document and the individual's limitations.
- Don't allow people or equipment to encroach the safety distance.
- Ensure everyone fully understands the work.

Take charge outside safe work areas.

- Don't let anyone work outside the safe work area.
- Make sure no one drives vehicles unsupervised.
- Ensure workers carry long objects horizontally and close to the ground. Movement of these objects must be supervised by a Competent Person (Full NSI8)
- Stay at ground level.



Transferring Safety Documents

If you need to transfer your document

- Instruct all working party members to leave the work area.
- Complete the Working Party Register.
- Complete Part 1 of the transfer record.
- Give the document and other relevant items to the SAP.



If you are receiving a transferred document

Get instructions from the SAP, and sign Part 2 of the transfer record. Then follow the steps outlined on pages 12 and 13.



Following this procedure will help ensure a smooth transition of leadership – and help protect everyone's health and safety.

Clearing the Safety Document

When work is complete and you need to clear the Safety Document

- Ask everyone to pick up tools and equipment (if necessary) and leave the work site.
- Sign the clearance section of the Safety Document. Declare any exceptions, such as access platforms, cranes or scaffolds that are left in the area; covers or guards that have not been replaced; weather protection that has been added; and items that have not been fitted because work is incomplete.
- Give the Safety Document and other relevant items to the SAP.
- Do not return to the work site.



In case of an emergency

If all persons involved do their part to ensure safety, accidents should not happen. But know how to respond just in case.

Call for help right away.

The telephone number is on the location's access gate.

Ensure your personal safety.

Do not try to rescue someone unless the SAP tells you to.

Give first aid.

If you have been properly trained, help the person until medical help arrives. (Find out about first-aid courses near you if you haven't been properly trained.)

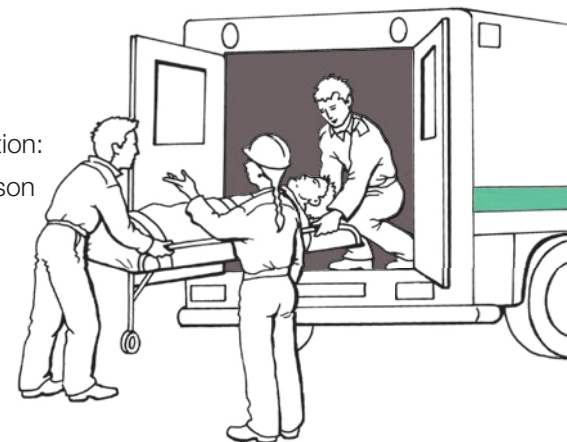
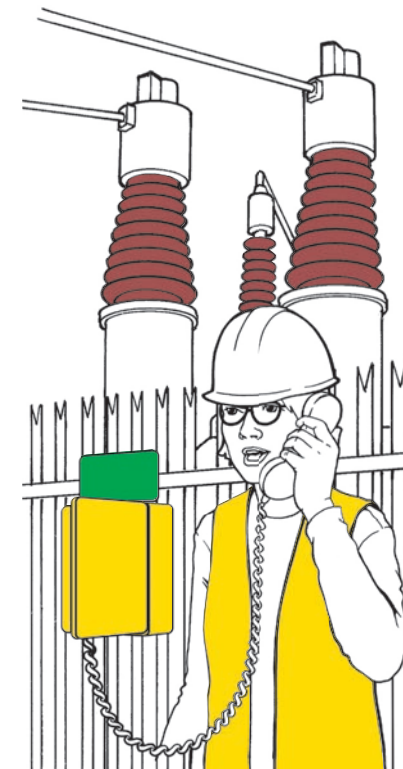
Secure the site.

Keep the gate locked shut. No one should be allowed on site until the SAP arrives and takes control of the emergency.

Report the incident to National Grid staff as soon as possible.

Provide the following information:

- the name of the injured person and his or her employer
- when the ambulance, fire brigade, etc., arrived
- specific details about the accident.



Persons on the site

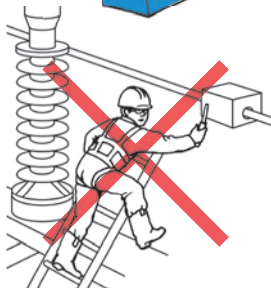
have responsibilities too! Help make sure that they:

Store materials, equipment and tools properly

This should be done as soon as they've finished with them. Tools, equipment, and so on, left lying around may cause an injury.



Never take chances or short cuts



Report any health and safety hazards

This should be done right away.



Follow emergency procedures

They should also take part in fire and emergency training.



Make proper use of PPE

And don't interfere with equipment provided for health and safety.

Never fool around or play practical jokes

Horseplay can lead to serious injuries.



Never try to perform work they aren't trained and qualified to do

Remind them often to ask for help if they're unsure about any procedure.



Follow National Grid's health and safety policies

They should also keep up to date with any revisions, new requirements or regulations.



In short, everyone needs to practise safe work habits.





How safely do you work?

Use this checklist to find out! The next time you're at work, be sure you:

- ☐ Familiarise yourself with the equipment and work to be done.
- ☐ Note the location of markers and any hazards.
- ☐ Read and understand the Safety Document. Be sure you can do the described work within the marked area.
- ☐ Understand Method Statements and Risk Assessments.
- ☐ Record everyone's name in the Work Party Register.
- ☐ Make sure everyone is wearing the proper PPE and using tools and equipment correctly. Make sure people nearby are not put in danger.
- ☐ Know when to clear the work area.
- ☐ Supervise others. Make sure all work is done within the limits of the Safety Document and that the safety distance is not encroached upon.
- ☐ Don't allow work outside the work area. Show workers how to safely carry long objects and maintain the safety distance.
- ☐ Make sure everyone uses safe access to and from the point of work.
- ☐ Tidy up the site and sign paperwork when work is complete. Declare any exceptions, such as drain earths still connected.
- ☐ Know and follow the procedures for transferring a Safety Document.
- ☐ Know how to respond to an emergency.

If you didn't check certain steps, make sure to add them to your work routine next time – for safety's sake.

**Following a health and safety plan can pay off.
Start today!**

