# Electrical safety – safe isolation

Everyone who will potentially come into contact with live electrical wiring or equipment must be fully trained and competent in how to protect themselves and others.

Only competent and qualified electricians can isolate electrical supplies, so that electrical wiring systems and equipment can be installed, removed or otherwise worked on.

If the isolation procedures go wrong, it is not only the qualified electrician directly involved in the work who could be injured, burnt or killed: others working nearby could be too.


## Essential points to consider

- Make sure that an effective safe isolation procedures is in place, and is followed by the trades concerned. The safe isolation procedure should be backed up by a permit-to-work system.
- Ensure that the safe system of working and details of the isolation procedure have been communicated to all persons involved in operating it.
- Inspect training records to confirm that those involved in operating the safe isolation procedure are competent to do so.
- If contractors are engaged for isolation of supplies, make sure that they have a safe isolation procedure in place, and that they have explained it to you.
- Determine if there is a risk of electrocution and death, or risk of impact injuries caused by recoiling from contact with live electrical parts.
- Establish if there is a risk of electrical burns or inhalation of smoke and toxic fumes, or a risk of noxious fumes from the ignition of combustible materials.
- Make sure that the correct notification procedures are followed each time before any isolation works are carried out.
- Ensure that others working in the vicinity are notified of isolated circuits or equipment that could affect their work and safety.
- Carry out periodic checks to make sure that the procedure is being used and followed properly.

## Making sure that the power stays off (secure isolation)

- If the electrical power has been turned off to allow work to be safely carried out on an electrical circuit, it is essential that the power stays off until the work is finished.
- The person doing the work must make sure that they are in control, and that they stay in control throughout the job. A good way to do this is for that person to have the only key to the switch, or to a locked room or cabinet containing the switch.
- Removing a fuse may seem to be a safe way of isolating a circuit, but someone else could insert another one. Displaying notices is not acceptable, as people often ignore them or do not notice them.
- If the person doing the job has any concerns that the electricity may be turned on again without them agreeing, they must be given the authority to stop work without delay, and without having to check with a supervisor first.

## Further information

- HSG253 *The safe isolation of plant and equipment* (free online Health and Safety Executive (HSE) publication)
- INDG231 *Electrical safety and you: A brief guide* (free online HSE publication)
- HSG85 *Electricity at work: Safe working practices* (free online HSE publication).