
Checklist

Inspecting electrical work

(The checklist below is adapted from HSE publications INDG231 and HSG107)

Electrical installation

- ✓ Are new electrical systems installed to a suitable standard, for example, BS 7671 (Requirements for electrical installations), and maintained in a safe condition?

- ✓ Are existing electrical systems properly maintained?

- ✓ Are enough socket outlets provided? Overloading socket outlets by using adaptors can cause fires

Providing safe and suitable equipment

- ✓ Is equipment chosen that is suitable for its working environment?

- ✓ Can electrical risks be eliminated by using air, hydraulic or hand-powered tools? These are especially useful in harsh conditions

- ✓ What systems are in place to ensure that equipment is safe when supplied and subsequently maintained in a safe condition?

- ✓ Is there an accessible and clearly identified switch near each fixed machine to cut off power in an emergency?

- ✓ For portable equipment, are socket outlets used which are close by so that equipment can easily be disconnected in an emergency?

- ✓ Do the ends of flexible cables always have the outer sheath of the cable firmly clamped to stop the wires (particularly the earth) from pulling out of the terminals?

- ✓ Are damaged sections of cables replaced completely?

- ✓ Are proper connectors or cable couplers used to join lengths of cable? Strip connector blocks covered in insulating tape should not be used

- ✓ Are records of visual inspections kept, the findings reviewed and the records used to check whether these inspections need to be carried out more frequently?

- ✓ Is there inspection and testing, where there is reason to suppose that equipment may be defective; after repair or modification; at periods appropriate to the equipment and the manner and frequency of use and the environment?

- ✓ Does the person conducting the tests have sufficient knowledge, training and experience?

- ✓ Are records of test results reviewed and used to check whether tests need to be carried out more frequently?

- ✓ Are all arrangements monitored and follow-up action taken?

Competence

- ✓ Are people working with electricity competent?

- ✓ Are some types of equipment double insulated? These are often marked with a 'double square' symbol. The supply leads have only two wires – live (brown) and neutral (blue). Are they examined to ensure that they are properly connected, if the plug is not a moulded-on type?

- ✓ Are light bulbs and other equipment which could be easily damaged in use protected?

- ✓ Is specialist advice sought to ensure that electrical equipment used in flammable/explosive atmospheres is designed to stop it from causing ignition?

Reducing the voltage

- ✓ Can the supply voltage be reduced to the lowest needed to get the job done? For example, temporary lighting can be run at lower voltages (12, 25, 50 or 110 volts); battery-operated electrically powered tools; portable tools designed to be run from a 110 volts centre-tapped-to-earth supply

Portable and transportable electrical equipment

- ✓ Is there a system of maintenance for portable (and transportable) electrical equipment?

- ✓ Has portable electrical equipment that needs to be maintained been identified and information obtained on where it is used and how?

- ✓ Has training and information been provided to allow users to carry out user checks?

- ✓ Has a formal visual inspection system been set up with trained staff?

- ✓ Is there written guidance relating to the visual inspection, identifying what to look for and the procedures to follow when faults are found (and when unauthorised equipment is in use)?

- ✓ Has an appropriate frequency been determined for formal visual inspection?

- ✓ Is suspect or faulty equipment taken out of use, labelled DO NOT USE, and kept secure until examined by a competent person?

- ✓ Are tools and power-socket outlets switched off before plugging in or unplugging?

- ✓ Is equipment switched off and/or unplugged before cleaning and making adjustments?

- ✓ Are more complicated tasks, such as equipment repairs or alterations to an electrical installation tackled only by people with knowledge of the risks and the precautions needed?

- ✓ Work should not be allowed on or near exposed live parts of equipment unless it is absolutely unavoidable and suitable precautions have been taken to prevent injury.

The full HSE guide *Electrical Safety and You* is available at www.hse.gov.uk/pubns/indg231.pdf and the full HSE guide *Maintaining Portable and Transportable Electrical Equipment* is available for purchase at www.hse.gov.uk