



008 - Electrical Safety Policy

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1. Policy Statement

NHS 24 recognises the potential dangers of electricity and will conduct its activities in compliance with the relevant legislation and guidance issued by authoritative bodies such as Institute of Electrical Engineers, Health and Safety Executive, and British Standards Institute.

2. Applicable Legislation

- Health and Safety at Work Act 1974
- The Electricity at Work Regulations 1989
- The Management of Health and Safety at Work Regulations 1999

2.1. Other Applicable NHS 24 Policies or Procedures

This procedure should be read in conjunction with the:

- Health and Safety Policy
- Use of Work Equipment Procedure
- Fire Safety Policy
- Energy, Efficiency and Carbon Footprint Reduction Plan
- IT Procedures related to electrical testing of IT equipment – computers, laptops, chargers, telephony etc

3. Definitions

“Charged” means an item has retained or acquired an electrical charge although it may be disconnected from the electrical system.

“Competent Member of Staff” means a person with sufficient information and knowledge following training to enable them to recognise faults from visual inspections.

“Competent Person” means a person with suitable training experience and technical knowledge appropriate to the class of work to be undertaken.

“Danger” means risk of injury, whether electrical or by some other means such as blast from an explosion caused by the electrical ignition of flammable substances.

“Dead” means neither live nor charged.

“Electrical equipment” includes anything used, intended to be used or installed for use, to generate, provide, transmit, transform, rectify, convert, conduct, distribute, control, store, measure or use electrical energy.

“Electrical installation” means every type of electrical equipment used to conduct electrical energy e.g. cables, wires and leads, lighting, distribution boards, circuit boards etc

“Electrical system” means all the electrical equipment which is connected to a common source of electrical energy.

“Live” means at a voltage by being connected to a source of electrical energy.

“Portable electrical equipment” means electrical equipment which has a cable and plug and which is normally moved around or can easily be moved from place to place.

4. Policy Arrangements/Guidance Notes

4.1 Inspections Tests and Maintenance

All electrical work must be carried out on dead systems with adequate precautions taken to ensure that the system cannot become live, except when the following conditions have all been fulfilled:

- it is unreasonable for the work to be completed when the system is dead, **and**
- the risks of working on or near live conductors have been identified, assessed and the methods for controlling those risks have been identified, **and**
- it is reasonable to work live, **and**
- Suitable precautions can be taken and are implemented to prevent injury.

Where the degree of danger is assessed as significant by a competent person, written permit-to-work systems must be followed. Live working will normally require a permit-to-work system unless the danger is minimal as determined by a competent person.

Staff must not interfere with or attempt to repair or adjust any electrical equipment unless they are competent and authorised to do so.

All fixed installations, electrical equipment, and portable equipment used by the company must be identified and logged.

Electrical Installation tests must be carried out by a competent person at all company premises every five years or on change of occupancy and an Inspection Report must be obtained.

Responsibility for ensuring the 5 yearly inspections and tests take place rests with the Facilities Manager.

Fixed electrics and electrical work such as rewiring, creating new or additional sockets or switches, wiring new lighting or smoke alarms into the electrical supply or installing electric fires or cookers will only be installed, inspected, repaired, added to or otherwise maintained by a competent electrician holding a recognised qualification from an organisation such as the National Inspection Council for Electrical Installation Contracting (NICEIC).

All remedial work necessary in order to receive confirmation that the installation is in a safe condition must be carried out by a competent person, and a report must be obtained to confirm this (such competence includes special training as necessary, for example for High Voltage work).

A competent person must carry out portable Electrical Equipment tests at specific intervals (See Information Sheet “Portable Electrical Equipment Test and Inspection Frequencies”).

This includes Staffs' own equipment used at work. Test records must be obtained and kept for the lifetime of the equipment

A competent member of staff must carry out visual inspections of Portable Electrical Equipment at specific intervals (See Information Sheet "Portable Electrical Equipment Test and Inspection Frequencies").

A list of Portable Electrical Equipment must be drawn up and records of inspection must be maintained

All defective electrical equipment must be isolated & taken out of use until remedial actions have been taken.

Records of all repairs to electrical equipment must be maintained.

Contractors bringing their own electrical equipment on site must be able to show evidence that it is safe and has been PAT tested. Third party electrical equipment providers i.e. vending machines, catering equipment must also be able to show evidence that it safe and has been PAT tested.

All contractors working on NHS 24 premises are only permitted to use tools that operate at 110 volts or less. This is important not only to protect contractor's staff, but also to protect the electrical services used by NHS 24.

Staff who wish to use their own electrical equipment at work must arrange for it to be PAT tested by a competent person before it is used in NHS 24 premises.

(A portable appliance which has been electrically tested will have a label attached to it in a visible location, detailing a unique identification, date of test, due date for next test and initials of test engineers. A 'Pass' label will be coloured green and a 'Fail' label coloured red).

Where NHS 24 are the landlords of the building they must ensure that The Memorandum of Terms of Occupancy permits or allows the leaseholder (NHS24) to impose a requirement on the Leasing Organisation to adhere to the minimum standards of all NHS 24 policies to ensure risks are adequately controlled or mitigated.

4.2 Users of the Equipment

4.2.1 Visual Check

Users have responsibility for undertaking basic User Checks, reporting of observed defects or concerns to management and ensuring that all electrical appliances supplied to NHS 24 are used as the manufacturer intended. The visual check is estimated to identify 85-90% of electrical problems. This check should be carried out by staff every time they use an appliance or item of equipment and should be "second nature" and part of daily routines.

Where a problem is identified the item should be taken out of use, labelled as faulty and not put back into use until it has been repaired or replaced. This should then be reported to the Lead Health and Safety Coordinator, Service Support Staff or the Office Manager.

The following Visual User Checks are to be carried out before using the equipment:

- Obvious Damage, e.g. cuts, abrasion (apart from light scuffing) to the cable covering.
- Obvious Damage to the plug, e.g. the casing is cracked or the pins are bent
- Non-standard joints including taped joints in the cable.
- The outer covering (sheath) of the cable not being gripped where it enters the plug or equipment.
- Equipment that has been used in conditions where it is not suitable, e.g. a wet or dusty workplace

- Damage to the outer cover of the equipment or loose parts or screws.
- Overheating (burn marks or staining on plugs or sockets).
- Overloaded sockets
- Smells of burning
- Loose connections
- Exposed wires
- Fraying of cables or cracks to cables and/or plugs
- Sparks
- Receiving electrical shocks

4.2.2. Employee Responsibilities

- To carry out a visual safety check before using any equipment
- To use the equipment in accordance with the manufacturer's instructions
- Not to use equipment they are unfamiliar with until they have received the appropriate instruction
- To only use equipment for its intended use
- Only use equipment purchased by NHS 24 e.g. staff should not bring in tools, appliances or equipment from home
- Not to use faulty equipment
- To report any faults promptly
- To remove faulty equipment from use, label it as faulty and ensure it is not returned to use until it has been repaired or replaced
- Not to alter the specification of equipment, re-wire, repair or attempt to repair faulty equipment (including changing fuses)
- To report any incident, injury or near miss occurrence when operating electrical equipment

4.2.3. Checks and Inspections

As described in 4.2.2 staff should carry out a visual check of any equipment before it is used and report any deficiencies using an AIR or incident report form (NHQ)

Checking of all electrical equipment should be included in the monthly workplace inspection schedule and recorded.

Certain equipment must be inspected and maintained or repaired by a competent contractor (such as fixed electrical systems, alarm systems, lifts, boilers, gas appliances) and records kept.

4.3 Provision of Equipment

Electrical equipment must be suitable for the environment and conditions of use to which it may be exposed e.g.:

- If electrical equipment is used where a flammable or explosive atmosphere is likely to occur the equipment must be "flameproof" equipment.
- If electrical equipment is used where there is a risk of damage to cables then armoured cable must be fitted.
- If electrical equipment is used in a wet environment it must be fitted with sealed waterproof connections, and fitted with a residual circuit device.

A sufficient number of sockets must be installed to prevent overloading.

Techniques to reduce the risk of electrocution must be employed whenever possible. These include:

- The use of double insulated equipment.
- The use of low voltage equipment.
- The use of residual current devices/power-breakers.

4.3.1 Portable Appliance Testing (PAT)

This will be carried out by a qualified Electrical Engineer and will be done on a 1-5 year cycle and records kept.

This will be triennial across the NHS24 estate.

Each appliance or piece of equipment will be labelled after a successful test/inspection to indicate the date after which it must not be used unless re-tested.

New equipment does not require to be PAT tested prior to use as long as it meets current EC safety requirements (CE Mark), but must be added onto the inventory to be tested in the next PAT cycle.

Reference should be made to IT Procedures with regard to testing of computer and telephony equipment.

4.4 Keeping an Inventory

It is important to maintain an up to date inventory of all electrical equipment and appliances to ensure that the testing regime is adhered to. Service Support teams will maintain a record of all equipment within their databases.

4.5 Purchasing new equipment

All new equipment must be manufactured and purchased to an appropriate standard – such as British Standards (BS) and European Norms (BS EN) and marked as conforming to European Union general standards (CE marked).

4.6 General electrical safety information

- Site all electrical equipment away from sinks and all other sources of water.
- Where there are not enough power points adaptors can be used. However, they must not be overloaded and it is not acceptable to plug one multiple socket into another i.e. “piggy backing”.
- Cables must not be positioned where they may give rise to a tripping hazard. If this cannot be avoided then the cable must be protected and visible by using a rubber or plastic cover.
- Do not assume all staff are familiar with all appliances such as dishwashers, microwaves, cookers, hoovers etc – accidents have been caused by wrong or inappropriate use of an appliance – e.g. foil containers in a microwave
- Switch off and unplug equipment when not in use
- Do not leave equipment on standby mode if possible
- Do not cover vents in microwaves, fridges or fridge freezers
- Do not leave mobile phone chargers in the socket and switched on when not charging a phone
- Where faults are identified a decision must be made as to whether to repair or replace the equipment. It is often the case that it is more cost effective to replace rather than repair.

5. Performance standards and record keeping

Performance standard	Responsibility	Frequency	Records required
Ensure identification of all installations, electrical equipment and portable appliances.	Site Service Support Manager	Ongoing	Yes
Ensure that all electrical equipment is suitable for the intended use.	Site Service Support Manager	As necessary	Yes
Ensure installation and PAT tests are carried out by a competent person(s). An inspection report must be provided.	Facilities Manager	Every 3 years.	Yes
Ensure that a competent member of staff has been appointed to visually inspect portable electrical equipment at the appropriate intervals,	Site Service Support Manager	Information sheet refers.	Yes
Ensure that only authorised, competent persons work on electrical equipment or systems, and that safe systems of work are used (for example, by sampling jobs).	Facilities Manager	Ongoing	Yes
Ensure that method statements, risk assessments and permit-to-work are completed and retained for at least 3 years.	Facilities Manager	Annually	Yes
Ensure that only electrical equipment that has been PAT tested is used on site.	Site Service Support Manager	Continuous	Yes
Review contractors for competence.	Facilities Manager	On first tender then annually	Yes
Ensure that any defective electrical equipment is taken out of service or appropriately isolated.	Site Service Support Manager	As necessary	Yes
Ensure that records of all electrical equipment repairs are maintained.	Site Service Support Manager	Ongoing	Yes

Appendix 1

Information Sheet Portable Electrical Appliance Visual Inspection Guidance

Visual inspections must be made of all high risk portable electrical equipment and of low risk equipment (offices etc) in accordance with frequencies set out in Information Sheet "Portable Electrical Equipment Test and Inspection Frequencies.

The checks must be recorded in a suitable manner to enable auditing to be completed

Quarantine and repair of equipment must be made where faults are identified. Proof of repair (i.e. copy of invoice) must be attached to the form that identified the fault.

Action required:

- Visually inspect all electrical equipment at the correct interval. The check is intended to identify any damage/deterioration that may happen between the P.A.T. tests.
- Pay particular attention to the cables and to where they connect to the equipment. Are they in good condition?
- Check for broken casings on equipment and plugs. Users may become exposed to live internal parts.
- Where it is safe to do so put your hands on the equipment casing and check if the equipment is running hot. Check for discolouration and/or scorch marks. Electrical fires are one of the biggest causes of lost business.
- Check that the cord grip on the plug is holding the outer cable sheath and that the blue/brown/yellow-green wires are not showing. If they are, the internal wires can pull away from the terminal and touch the others leading to a dangerous potentially fatal shock.
- Check there is no block or other unauthorised connectors joining two cables, (check anything with insulating tape wrapped around it).
- If users complain of intermittent faults, (equipment stops working and then starts again for e.g.), have the equipment checked by an electrician. Do not allow it to be used. These random faults usually indicate loose or broken internal wires that can become extremely dangerous.
- Check there are no non-flexible cables on portable appliances. These are not meant to bend and will eventually crack and may become dangerous.
- If equipment is used in wet or external conditions check that the correct weatherproof connections are present and that the equipment is protected by an RCD. Check the RCD by pressing the test button. The RCD switch should trip to off.
- Although not electrical, also check for trip hazards caused by the cables or the equipment itself.
- All identified faults must be repaired by a qualified person. Proof of those repairs must be attached to the inspection form on which the fault was noted.
- Do not allow Staff(s) to use equipment with identified faults. Quarantine it until repaired or replaced.

Appendix 2

Information Sheet

Portable Electrical Equipment Test and Inspection Frequencies for NHS 24

'What is portable electrical equipment?'

Generally, equipment that has a lead (cable) and plug and which is normally moved around or can easily be moved from place to place, e.g. vacuum cleaners, kettles, heaters, fans, televisions, desk lamps; and also equipment that could be moved, e.g. photocopiers, fax machines, desktop computers, hand tools and extension leads.

Equipment/ Environment	User checks	Formal visual inspection	Combined inspection and testing
Information technology: e.g. desktop computers, VDU screens	Yes	Yes, at least 2 yearly	5 years
Photocopiers, fax machines: NOT hand-held. Rarely moved	Yes	Yes, at least 2 yearly	5 years
Double insulated equipment: NOT hand-held. Moved occasionally, e.g. fans, table lamps, slide projectors	Yes	Yes, at least 2 yearly	5 years
Double insulated equipment: HAND-HELD e.g. some floor cleaners	Yes	Yes, Monthly	3 year
Earthed equipment (Class 1): e.g. electric kettles, some floor cleaners	Yes	Yes, Monthly	3 year
Cables (leads) and plugs connected to the above. Extension leads (mains voltage)	Yes	Yes, 1 month to 2 years depending on the type of equipment it is connected to	1-5 years depending on the type of equipment it is connected to

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