



## Electrical Safety Policy

### Contents

1	Statement of Aims and Objectives .....	2
2	Principles.....	2
3	Definitions .....	3
4	Responsibilities .....	4
5	Monitoring compliance .....	5
6	Audit and Review (evaluating effectiveness).....	6
7	Associated Trust Documentation.....	6
8	References.....	6
9	Financial Checkpoint.....	7
10	Equality Analysis .....	7
11	Appendix A:.....	7



# 1 Statement of Aims and Objectives

South East Coast Ambulance Service NHS Foundation Trust



1.1 South East Coast Ambulance Service NHS Foundation Trust (the Trust) is committed, through the Board of Directors and all levels of management, to ensure so far as is reasonably practicable that:

1.2 All employees' health, safety and welfare are safeguarded whilst at work. Contractors, volunteers and visitors entering our premises are protected from exposure to any health and safety risks during the course of their business or visit.

1.3 The Trust is fully committed to ensuring, as far as is reasonably practicable, the health, safety and welfare of our staff, clients, visitors, contractors and others who may be affected by the building fabric. This will include those who interact with our environment as part of their day to day activity and those who perform intrusive works, linked to the maintenance of the building(s) condition.

1.4 The Trust has a requirement to ensure all electrical equipment, supply systems and services are maintained and in a safe condition within the scope of The Electricity at Work Regulations Act (1989).

## 1.5 This policy is also applicable to:

1.5.1 Directors, Heads of Service and Senior Managers, who have responsibilities as set out in the Health & Safety Policy (V7.00) any employees with responsibilities for the management of Trust premises or those with responsibilities for overseeing contractors working on and maintaining services within Trust premises.

1.5.2 All employees who design and oversee work to electrical systems on Trust premises or those who commission consultants and contractors to design and oversee work to electrical systems on Trust premises.

## 2 Principles

2.1 The health and safety of anyone affected by the work of the Trust is a responsibility that is taken seriously. This document sets out the Trust's policy to ensure that all electrical equipment is adequately maintained as to not present a risk to the Trust employees or other members. The Trust recognises the following keys factors in fulfilling the Trust's obligations and this policy sets out effective mechanisms to ensure that these are achieved

2.2 **The trust will:** systematically and proactively conduct periodic inspection and testing of all fixed Low Voltage electrical systems in accordance with BS 7671: 18<sup>TH</sup> Edition Requirements for Electrical Installations, IET Wiring Regulation (Current Amendment) for each property owned or maintained by the Trust. Undertake regular reviews of the periodic inspection and testing thereafter to re-assess the onsite risks identified in order that the frequency of inspection and testing of final circuits shall not exceed 5 years.

2.3 Audit other building owners or maintenance providers where Trust employees occupy a building to ensure compliance with periodic inspection and testing of all fixed Low Voltage electrical systems in accordance with BS 7671:



- Requirements for Electrical Installations, IET Wiring Regulations.
- Current Amendment, or most current version.
- Effective communication of roles and responsibilities.
- Clear procedures that are communicated effectively.
- Ongoing assessment and mitigation of risks.

### 3 Definitions

- 3.1 Electrical Equipment is anything used, intended to be used or installed for use in order to generate, provide, transmit, transform, rectify, convert, conduct, distribute, control, store, measure or use electrical energy.
- 3.2 Injury from electric shock, electric burn, electrical explosion or arcing, or from fire or explosion initiated by electrical energy, where any such death or injury is associated with the generation, provision, transmission, transformation, rectification, conversion, conduction, distribution, control, storage, measurement or use of electrical energy.
- 3.3 The Management refers to the owner, occupier, employer, general manager, chief executive or other person in a healthcare organisation, or their appointed responsible contractor, who is accountable for the premises and who is responsible for issuing or implementing a general policy statement under the Health and Safety at Work etc Act 1974.
- 3.4 Permit-To-Work (Electrical LV) is a safety document, which is a form of declaration, signed and issued by an Authorised Person (LV) to a Competent Person (LV) in charge of work to be carried out. It defines the scope of the work to be undertaken and makes known exactly what equipment is dead, isolated from all live circuit conductors and safe to work on.
- 3.5 System is an electrical system in which all the electrical equipment is, or may be, electrically connected to a common source of electrical energy, and includes such source and such equipment.
- 3.6 Senior Operational Manager (SOM) may have operational and professional responsibility for a wide range of specialist services. It is important that the SOM has access to robust service-specific professional support which can promote and maintain the role of the “informed client” within the healthcare organisation. This will embrace both the maintenance and development of service specific improvements, support the provision of the intelligent customer role and give assurance of service quality.
- 3.6.1 **Voltage Categories:**
- **Extra Low Voltage** - A potential not exceeding 50V ac or 120V ripple free dc whether between conductors or to earth.
  - **Low Voltage (LV)** - A potential not exceeding 1000 volts ac or 1500 volts dc between conductors or



- 600 volts ac or 900 volts dc between a conductor and earth;
- **High Voltage (HV)** - A potential normally exceeding low voltage.

3.6.2 (All definitions above are referenced from Health Technical Memorandum (HTM) 06-01: Electrical services supply and Distribution 2017, as the primary reference documents).

## 4 Responsibilities

### 4.1 Chief Executive

- 4.1.1 The Chief Executive Officer, as Duty Holder has overall responsibility for the health, safety and welfare of staff and others affected by the work activities of the Trust for the effective implementation of health and safety management policies and procedures.
- 4.1.2 The CEO, as Duty Holder, is responsible for making adequate funds and resources are available, to ensure that this policy is fully implemented.
- 4.1.3 The CEO, as Duty Holder, is responsible for nominating, in writing, the specific role of an appointed competent person, known as the “**Designated Person**”.
- 4.1.4 The CEO, as Duty Holder, is responsible for ensuring that the appointed Designated Person(s) are suitably informed, instructed and trained and that their suitability is assessed. Regular refresher training should be given and the Designated Person(s) should have a clear understanding of their role and the overall health and safety management structure and of the Trust’s policy.
- 4.1.5 The CEO, as Duty Holder, is responsible for ensuring that appropriate lines of communication are in place.
- 4.1.6 The CEO, as Duty Holder, is responsible for ensuring that emergency and contingency planning are in place.
- 4.1.7 The CEO, as Duty Holder must be aware of their responsibilities as set out in the Trust’s Electrical Safety Management Policy, the Trust’s Health & Safety Policy and all associated guidance and legislation.

### 4.2 The Designated Person

- 4.2.1 The Designated Person should have sufficient authority, competence and knowledge of the installations and system to ensure that all operational procedures are carried out in a timely and effective manner.
- 4.2.2 The Estates Manager, as Designated Person, has responsibility for the management of safe electrical systems;
- 4.2.3 A full list of responsibilities is in Appendix A: Responsibilities - Estates Manager.
- 4.2.4 **Authorising Engineer (LV) – FM Contractor** - The Authorising Engineer (LV) is appointed in writing by the Designated Person to take responsibility for the effective management of safety guidance (LV). Has practical and relevant technical experience



and/or qualifications of the types of systems and equipment relative to their appointment. The Authorising Engineer (LV) will be responsible for implementing, administering and monitoring the requirements of the HTM 06 guidance document.

- 4.2.5 A full list of responsibilities is in Appendix A: Responsibilities - Authorising Engineer (LV).
- 4.2.6 **Authorised Person (LV) – FM Contractor/subcontractor** - An Authorised Person (LV) is appointed in writing by the management on the recommendation of the Authorising Engineer (LV) in accordance with HTM 06 safety guidance with regard to work on, or the testing of, defined electrical equipment. Once appointed they are responsible for, the implementation of the electrical installations for which they have been appointed.
- 4.2.7 A full list of responsibilities is in Appendix A: Responsibilities - **Authorised Person (LV)**.
- 4.2.8 **A Competent Person (LV) – FM contractor/subcontractor** - A competent person is approved and appointed in by an Authorised Person (LV) for defined work, possessing the necessary technical knowledge, skill and experience relevant to the nature of the work being undertaken, who is able to prevent danger or, where appropriate, injury and who is able to accept a permit-to work from an Authorising Person.
- 4.2.9 **Accompanying Safety Person (LV) – FM contractor/subcontractor** - Is a person not involved in the work or test that has received training in and who has adequate knowledge, experience and the ability to avoid danger, keep watch, prevent interruption, and summon help when needed. The person is to be familiar with the system or installation being worked on or tested and is to have been instructed on the action to be taken to safely rescue a person in the event of an accident.
- 4.3 All Employees**
- 4.3.1 All employees are responsibility for their own safety and the safety of others due to their actions or inactions with respect to Health and Safety.
- 4.3.2 A full list of responsibilities is in Appendix A: Responsibilities - All Employees
- 4.4 Education and training**
- 4.4.1 No person should work on electrical systems or equipment without formal training and qualification and experience in the category of electrical work being undertaken. Records of training and competence are held with Estates.
- 4.4.2 In addition to formal electrical qualifications, the standards in Health Technical Memorandum – ‘Electrical safety guidance for low voltage systems’ should be applied, including electric shock resuscitation training.

## **5 Monitoring compliance**

- 5.1 The Head of Strategic Estates shall be responsible for monitoring safe electrical systems within the Trust.
- 5.2 This procedure and policy will be reviewed every two years or sooner if new legislation, codes of practice, significant management changes occur, or national standards are



introduced/updated, to ensure it meets current legislation and guidance and biannually to ensure that the procedures identified within this policy are being adhered to and the identified and documented business processes are retained.

- 5.3 Where there is a significant change to legislation related to that affects this policy a review will be implemented ahead of any plan reviews.
- 5.4 Where works/services are procured checks shall be made to ensure that those persons undertaking that work/design meet or are qualified to the relevant standard applicable to the area of responsibility for which their services have been procured.

## 6 Audit and Review (evaluating effectiveness)

- 6.1 The use of and compliance with this Policy will be monitored by the Estates Management Team.
- 6.2 This Policy will be retained and owned by the Estates Department. **Adequate records shall be maintained for the following: -**
- Staff training and authorisation.
  - Tests and works associated with: - commissioning, maintenance, inspection, testing and repair of fixed and portable electrical equipment, wiring, switchgear and plant.
  - The trusts electrical distribution system circuit routes, conductor sizes, switchgear and usage ratings, protection relay settings and control/isolation/final outlet positions.
  - Location of Emergency Battery Lighting supply.
  - Drawings, manuals, and test certification for all new/additional work.

## 7 Associated Trust Documentation

- Please refer to the Trust's *Electrical Safety Procedure (V 1.0)*
- Please refer to the Trust's *Health and Safety Policy (V7.00)*

## 8 References

- Health Technical Memorandum 00: – Policies and principles of healthcare engineering.
- Health Technical Memorandum 06-01: – Electrical services supply and distribution.
- Health Technical Memorandum 06-02: – Electrical safety guidance for low voltage systems.



- Electricity at Work Regulations (1989)
- BS 7671:2018 IET Wiring Regulations

## 9 Financial Checkpoint

- 9.1 To ensure that any financial implications of changes in policy or procedure are considered in advance of document approval, document authors are required to seek approval from the Finance Team before submitting their document for final approval.
- 9.2 This document has been confirmed by Finance to have no unbudgeted financial implications.

## 10 Equality Analysis

- 10.1 The Trust has undertaken an equality impact appraisal and no adverse equality impacts were identified. The equality analysis is appended to this policy.

## 11 Appendix A:

### Responsibilities

#### Estates Manager/Estate Technical Managers

The Estates Manager/Technical Manager(s) are responsible for Provision of adequate information, supervision, and instruction to ensure work on electrical systems can be carried out safely.

Provision of a safe place of work, including adequate working space, access, and lighting.

The design and purchase of new equipment and extensions to existing equipment and extensions to existing electrical systems shall be carried out by persons with appropriate technical knowledge, experience and understanding of current regulation, standards, and established Codes of Practice.

Inspecting and testing all new electrical installation work prior to handover or putting into service. The inspection and test results shall be recorded and held on the Estates Database/Register.

Ensuring all electrical equipment is clearly labelled, particularly switchgear and fuse boards, for circuits and identification purposes.

Maintaining circuit diagrams and plans to provide a comprehensive record of all electrical systems, and arrangements shall exist for updating following system modifications.

Inspecting and testing all electrical systems periodically.



**Authorising Engineer (LV) – FM Contractor** - The Authorising Engineer (LV) is responsible for implementing, administering and monitoring the requirements of the PTM 06 guidance document. The Authorising Engineer (LV)'s roles include the following:

- Assessing and recommend in writing sufficient Authorised Persons (LV) required to provide the necessary cover for all systems and installations for which the Trust has responsibility.
- Defining the exact extent of the systems and installations for which each Authorised Person (LV) is responsible and where appropriate any part of the system which is excluded from the Authorised Person (LV)'s responsibilities.
- If necessary, recommending the suspension or cancellation of the appointment of an Authorised Person (LV) and withdraw the certificate.
- Maintaining a register of all Authorised Persons (LV).
- Ensuring candidates for appointment as Authorised Persons (LV) satisfy the qualification, training and familiarisation requirements. Can demonstrate adequate knowledge of each system, installation and type of equipment for which authorisation is sought. Demonstrating their competence and ability.

**Authorised Person (LV) – FM contractor/subcontractor** - An Authorised Person (LV) is responsible for, the implementation of the electrical installations for which they have been appointed. The duties of the Authorised Person will include the following:

Appointing in writing Competent Persons (LV) and maintain a register of all such appointments making this available to the Designated Person.

Co-operating with the Authorising Engineer (LV) in matters of policy concerning the LV systems. Issuing permits to work as may be required for electrical systems.

## All Employees

The Trust does NOT support the following types of action or request which may breach Health and Safety: -

- Connection of electrical appliances to the Trust's electrical system unless they have been purchased and registered on the Trust's appliance register. The Estates department Authorised Person shall provide guidance regarding portable appliances.
- Other than phone chargers (see guidance below) the use of any personal portable electrical equipment
- Connection or removal of components or parts from equipment that is live.

Installation, removal or replacement of any electrical accessory whilst that circuits is live;

- Any work on electrical services not made dead and isolated.
- To "make dead" requires that the item is isolated from all sources of electrical energy, "proved or confirmed dead" with an approved voltage indicator that itself shall be tested before and





after each use, and the fitting of a safety lockout including personal padlock and sign, all of which can only be performed by a Competent Person (electrical).

- Any person carrying out any electrical work (LV) on the Trust's estate must be appropriately qualified / trained and been signed up as a competent person by the Trusts A/P.
- Access to electrical switch rooms and substations shall be maintained free of obstruction at all times.
- Electrical switch rooms, sub stations, electrical cupboards MUST not be used as a general store cupboard and clear access to electrical switch gear must be maintained at all times.
- The Trust requires that all staff carryout the following simple basic inspection of portable electrical equipment (source HSG 107 User checks (visual)) each time that the equipment is taken into use and as felt necessary during use.

**Check for: -**

- Damage (apart from light scuffing) to the cable sheath.
- Damage to the plug, for example the casing is cracked, or the pins are bent.
- Inadequate joints, including taped joints in the cable.
- The outer sheath of the cable not being effectively secured where it enters the plug or the equipment. Obvious evidence would be if the coloured insulation of the internal cable cores were showing.
- The equipment has been subjected to conditions for which it is not suitable, e.g. it is wet or excessively contaminated.
- Damage to the external casing of the equipment, or there are loose parts or screws.
- Evidence of overheating (burn marks or discolouration).
- Physical damage i.e. cracks to light switches, sockets or any other item of the fixed electrical installation visible to employees.

**These checks also apply to extension leads and their associated plugs and sockets.**

Any faults should be reported by local management / staff and the equipment taken out of use immediately. The local management / staff shall take effective steps to ensure that the equipment is not used again until it has been repaired by a Competent Person. (E.g. the defective equipment should be labelled as "Faulty" by the department manager and repaired by the Estates department contractor).

In the event that during the above inspection a Portable Appliance Test label (PAT) is observed to be out of date this should be reported immediately by the appropriate management system.

All new equipment purchased for the use within the Trust premises, has at least 1-year manufacturer guarantee, after this period the equipment MUST be PAT tested.



Any extension leads purchased / used must be fully un-wound, have a rating of at least 13amps, minimum cable size of 1.5 mm<sup>2</sup>. Any extension leads rated smaller than 13amps could be at risk of being overloaded. Extension leads should be at the required length as to a long lead could cause a trip hazard.

Any pre used hand equipment including extension leads **MUST** be checked and PAT tested by Estates before it is plugged in and used.

Any mobile phone type charger (either employee owned or trust supplied) must be checked by local management for signs of damage, overheating or misuse and must be CE marked with 250 mm maximum length of USB type lead only and the transformer must be of a suitable type and designed for charging the equipment concerned.