ELECTRICAL SAFETY POLICY

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Health and Safety Policy			
Risk Assessment Procedure			

Amendment History

Issue	Status	Date	Reason for Change	Authorised
1.0	Archived	May 2015	New format	
1.01	Archived	July 2018		
1.01	Live	July 2018	Review and Update	
1.2	Approved	July 2020	Review and Update	

Please note:

If you require a copy of this policy in an alternative format (for example Large Print, Easy Read) or would like any assistance in relation to the content of this policy, please contact the Human Resources (HR) team on 01803 656680.

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1.0 POLICY STATEMENT

The Trust Health and Safety Policy outlines its commitment to protecting and improving the health, safety and well-being of patients, visitors, staff and the wider community, through responsible and effective management and development of the natural and built environment.

This electrical safety policy is issued under the authority of the Chief Executive and will apply to all Trust electrical activities.

This Policy and Procedures apply to all persons (staff, contractors, patients and members of the public) who may be affected by any electrical activity arising from works (including use or contact with equipment) carried out on properties currently owned or leased by the Trust, and any purchased or leased in the future. It also applies to all electrical activities undertaken by employees and/or contractors when working at any Trust location.

This Policy written in line with the following documents:

- Health & Safety at Work Act 1974
- Electricity at Work Regulations 1989
- BS 7671 as amended
- Health Technical Memorandum HTM 00
- HTM 06 – 01 Electrical Services Supply & Distribution
- HTM 06 – 02 Electrical Safety Guidance for Low Voltage (LV) Electrical Systems
- HTM 06 – 03 Electrical Safety Guidance for High Voltage (HV) Electrical Systems

As best practice advice for the healthcare sector as a reference for compliance with legislation and to maintain Standards for better Health: C20a - to promote effective care and optimise health outcomes by being a safe and secure environment.

This Policy applies to the Trusts Electrical HV, LV & ELV infrastructure:

- Up to and including the point of use/ local isolation from the LV system
- Building services plant and non-medical equipment connected to the LV system

This Policy excludes elements of the following:

- IT systems, wiring, components and equipment
- Security systems, wiring, components and equipment
- Medical Electronics systems, wiring, components and equipment

Refer to the relevant IT, Security and Medical Electronics Department specific Policies and procedures for further details if required.

2.0 PRIMARY OBJECTIVES

The prime objectives of this document are to:

- Detail the Trusts Policy to achieve safety in all its electrical activities in compliance with its legal and statutory obligations
- Provide guidance and references to assist staff in implementing the Electrical Safety Policy
- Ensure adequate and effective control of electrical systems throughout the Trusts premises including the appointment of appropriate responsible persons whose duties are defined herein
- Formulate specific operational procedures to ensure the overall integrity of electrical systems, usage and equipment in compliance with the guidelines.
- Ensure surveys and risk assessments are completed of all relevant systems and equipment to establish any non-compliance in accordance with the Trusts Policy and operational procedures
- Ensure the establishment of a programme of modifications of such systems and equipment to work towards compliance
- Ensure that the design of relevant building services for new, refurbished or modified systems is such that the guidance is followed
- Ensure the compilation (where necessary) and maintaining of records and drawings of electrical systems
- Ensure the compilation and keeping of maintenance and testing records
- Ensure all relevant personnel are adequately trained in practices and procedures with respect to the electrical systems

3.0 ROLES AND RESPONSIBILITIES

The Roles & Responsibilities are fully documented in HTM00, HTM06-02 (LV) and HTM06-03 (HV) and should be referred to for full descriptions of key individual's roles.

The following personnel shall be appointed in writing and shall provide formal acceptance in writing for both HV and LV duties as defined by HTM 00, HTM 06-02 & HTM 06-03.

3.1 Duty Holder (DH)

Under Regulation 3(2) of the Electricity at Work Regulations 1989 **everyone is deemed to be a Duty Holder** (Including the Trust, its employees and any sub-contractors) dependent upon the activity that they are undertaking.

3.2 Designated Person (DP)

The DP is an individual appointed by the Trusts who has overall authority and responsibility for the LV electricity system within the premises, and who has a duty under the Health and Safety at Work, etc Act 1974 to prepare and issue a general policy statement on health and safety at work.

The DP has overall responsibility for the Estates and Facilities Management (EFM) Department and will ensure sufficient resource are available to enable the Trusts to comply with HTM's, relevant standards, guidance, legislation and this Policy.
The DP or their nominated Deputy, is responsible for the overall management and implementation of this policy and the appointment of Competent Persons on the recommendation of the Authorising Engineer (HV/LV) or Authorised Person (HV/LV).

The DP will maintain a register of Authorised and Competent staff.

The Director of Estates and Commercial Development is the D P.

3.3 Authorising Engineer (AE)

An AE is appointed in writing by the DP to take responsibility for the effective management of the electrical safety guidance. The person appointed should possess the necessary degree of independence from local management to take action within this guidance.
The AE shall submit an annual report on the effectiveness of the Trust's compliance with HTM 06-03 (HV) and HTM 06-02 (LV) to the DP.

3.4 Authorised Persons (AP)

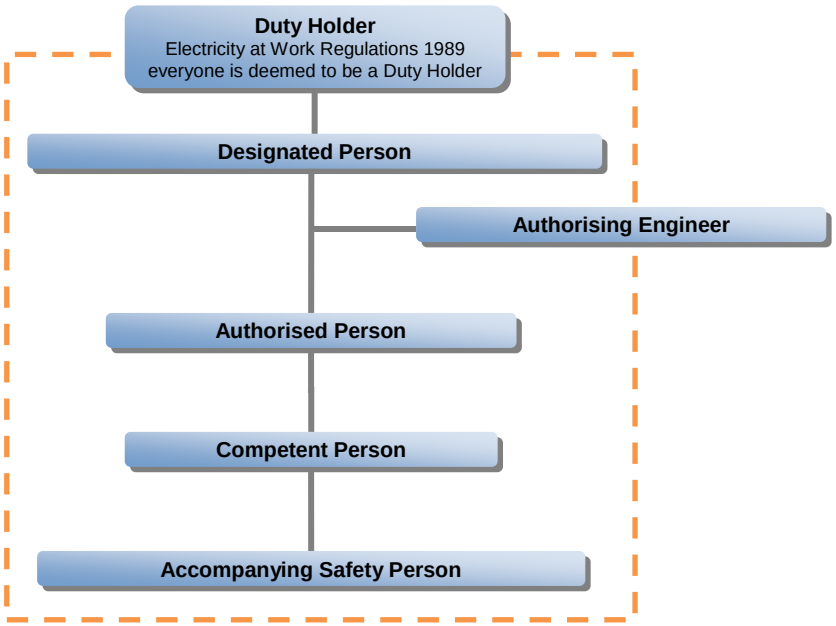
An AP is appointed in writing by the management on the recommendation of the AE in accordance with this safety guidance and is responsible for the implementation and operation of this guidance with regard to work on, or the testing of, defined electrical equipment.
The AP HV and LV are responsible for ensuring that the electrical services are operated safely and efficiently in accordance with this Policy.

3.5 Competent Persons (CP)

A CP is approved and appointed in writing by an AP for defined work, possessing the necessary technical knowledge, skill and experience relevant to the nature of the work to be undertaken, who is able to prevent danger or, where appropriate, injury, and who is able to accept a permit-to-work from an AP.

The Capital Development team shall ensure compliance with this Policy with regard to development of sites and all capital works.

3.6 Organisation Chart



3.7 Trust Managers

Will ensure that staff in their areas shall use electrical systems appropriately and all staff working with the Trusts electrical infrastructure at either HV or LV should familiarise themselves with the content of these reference documents as appropriate for their duties.

Shall provide access at all reasonable times to all properties and electrical equipment in order that Trusts staff and Contractors can discharge their duties under this policy.

Liaise with the EFM Department regarding all equipment connected, or to be connected to the Trust electrical infrastructure, in order to ensure all aspects of the electrical installation and maintenance are fully in accordance with this Policy.

Must ensure that any/all items of electrical equipment or systems to be connected to the Trust electrical infrastructure are appropriately tested and commissioned *prior* to installation and connection to the Trust electrical infrastructure and prior to use.

Must ensure that any/all items of electrical equipment or systems connected to the Trusts electrical infrastructure must be regularly tested and inspected in accordance with this Policy and any current regulations.

The implementations of major items of plant or equipment are approved by an AP prior to procurement. No system shall be commissioned or made live without prior authorisation from the AP, or his designated representative. The AP may request the AE be in attendance throughout the design, install and commissioning stages as required. EFM Department and AP have the ability to refuse connection of equipment or systems to the Trusts electrical Infrastructure.

Must report faults relevant to electrical circuits or equipment to the EFM Department, via the EFM Web Based Reporting Portal, or by using the internal telephony system and asking for the “Estates Helpdesk”, for action. Once reported, keep the details of the fault/repair with the estates helpdesk call reference number for future reference.

Will ensure all portable appliances have been appropriately tested prior to first use and then continually during their lifetime in accordance with the relevant section of the EFM procedures document (EFM/E001.

3.8 Contractors

Any contractor undertaking work on the Trusts electrical infrastructure shall be required to comply with:

- This Policy and any instruction issued by the Trusts Authorised Persons in accordance with this policy
- The EFM Department “Contractors Information Document”

No contractors are permitted to undertake work on the Trusts electrical infrastructure without first:

- Obtaining formal permission from the EFM Department to undertake works
- Attending and completing an EFM Department site induction
- Issuing all relevant documentation to the EFM Department representative for formal review and comment prior to attending site, including but not limited to technical details and design information, risk assessments and method statements and manufacturers information specifically relating to the works to be undertaken

Contractors whose work is considered to be unsatisfactory or unsafe will be instructed to cease work. Sub-standard works may result in the contractor being removed from site and their company being removed from the Trusts approved contractors' list.

Whenever there is an apparent division of responsibilities regarding electrical systems, equipment or portable electrical appliances, the Estates & Facilities Departments Authorised Persons will issue instructions to all relevant parties as necessary to prevent danger.

4.0 STATUTORY REQUIREMENTS

It is Trust policy to fully comply with all legal and statutory requirements.

4.1 The Electricity at Work Regulations 1989 (EAW).

The EAW Regulations are concerned with the complete life of an electrical system i.e. - design, construction, operation, maintenance, modification, records, dismantling and disposal. The Regulations apply to all electrical systems of any voltage and are designed to prevent injury. Indeed if any person is injured due to an electrical cause (shock, fire, burns) then those involved both directly and managerially must show that they exercised all due diligence and took all reasonable precautions (defence regulation No 29) to prevent prosecution for breach of the Regulations.

4.2 Health Technical Memorandum (HTM)

HTM 06-01, HTM 06-02 (LV) & HTM 06-03 (HV). The HTM's provide Guidance and best practice advice for the healthcare sector for all Electrical Services installation and maintenance.

5.0 HV AND LV SAFETY RULES

The Trusts have adopted the Department of Health's publication "HTM 06-03 *Electrical Safety Guidance for High Voltage Electrical Systems* and associated "Electrical Safety Rules for High Voltage Systems" (ISBN 011 3216432) as its method of achieving a safe system of work on its HV systems.

The Trusts have adopted the Department of Health's publication "HTM 06-02 Electrical Safety Guidance for Low Voltage Electrical Systems and the associated "Electrical Safety Rules for Low Voltage Systems" (ISBN 011 3218521) as its method of achieving a safe system of work on its LV systems.

Copies of the Trusts Electrical Safety Rules for High Voltage Systems and Low Voltage Systems are available for inspection from the EFM HV/LV Authorised Persons.

Trusts electrical employees shall fully understand and comply with the Trusts Electrical Safety Policy, together with the Electrical Safety Rules (HV and/or LV) and related documents appropriate to their duties.

Such employees and other persons shall acknowledge the Electrical Safety Policy (and any amendments thereto), and have them available for reference as necessary.

All persons concerned with work to which the Electrical Safety Rules (HV or LV) apply, must make themselves conversant with the requirements of the Rules. Ignorance of their requirements shall not be accepted as an excuse for neglect of duty.

All persons shall work safely and not put themselves or others at risk. Failure to do so will involve disciplinary procedures for direct labour.

Any person undertaking work on the Trusts electrical Infrastructure, associated plant and apparatus shall immediately cease work in the event of an objection being raised by any member of the EFM department in relation to the work activity. In the event of any such objection, both the person undertaking the work and the EFM representative raising the

objection shall immediately refer to the EFM Department 'point of contact' responsible for commissioning the works, who in conjunction with an electrical AP shall agree if modifications to the works are required or if works are able to continue. If deemed necessary by the AP, further investigations may be required with further reference to the AE for a decision before proceeding further.

All work to be undertaken on Trusts HV equipment shall be carried out in accordance with the Permit to Work system, operated and controlled by the HV AP and as defined within HTM06-03.

All work to be undertaken on Trusts HV equipment shall be preceded by the preparation of an appropriate Safety Program in accordance with HTM06-03, authorised by the AE or a second Trust HV AP.

All work to be undertaken in proximity to Trusts HV equipment shall be carried out in accordance with the Limitation of Access system, operated and controlled by the HV AP and as defined within HTM06-03.

Any LV work requiring isolation via a point not local to the point of work shall be subject to a permit to work issued by the LV AP other than those deemed CP by the LV AP.

6.0 Live Working

High Voltage - Live working is **not permitted** on any part of the Trusts HV installation

Low Voltage – Live working is **strictly controlled** and in accordance with HTM06-02 and 'Regulation 14' of the 'Electricity at Work Regulations 1989':

"No person shall be engaged in any work activity on or so near any live conductor (other than one suitably covered with insulating material so as to prevent danger) that danger may arise unless:

- *It is unreasonable in all the circumstances for the conductors to be dead, and*
- *It is reasonable in all the circumstances for the person to be at work on or near the conductor while it is live and suitable precautions (including where necessary the provision of suitable protective equipment) are taken to prevent injury"*

Live working to remove/ replace energised fixed components will only be permissible subject to the agreement of the AE (LV) and the issue of a 'Certificate of Authorisation for Live Working'.

The only 'live working' activity that may be considered as an exception to the above criteria (i.e. the removal/ replacement of energised fixed components) is the replacement of a battery or battery cells within Trust owned equipment. Authorisation for such work on systems of more than 25V and/or 10Ah must be given by an AP (LV) and the issue of a 'Certificate of Authorisation for live Working'.

CP authorised for live working may carry out live working which does **not** require them to remove or replace any energised fixed components – in simple terms no wires on or off any

live terminals. They shall carry out an onsite risk assessment by completing an LW 1 (EFM/E001) form immediately before carrying out the live work and shall observe all necessary safety precautions as selected from the LW1 form to ensure that the live work is completed without injury. A list of live working activities which may be completed under LW1 safety conditions are:

- Fault finding
- Testing
- Fuse or 'plug in' component removal
- Battery maintenance
- Adjustments (e.g. potentiometer setting)
- Work on batteries with a rating of less than 10Ah or 25V output

NB, live working is work **on or near** exposed live conductors or components.

The items above may only be undertaken by a CP (LV) when a self-assessment LW1 form has been completed and where the work does not require energised fixed components to be added/ removed from terminals.

7.0 Monitoring

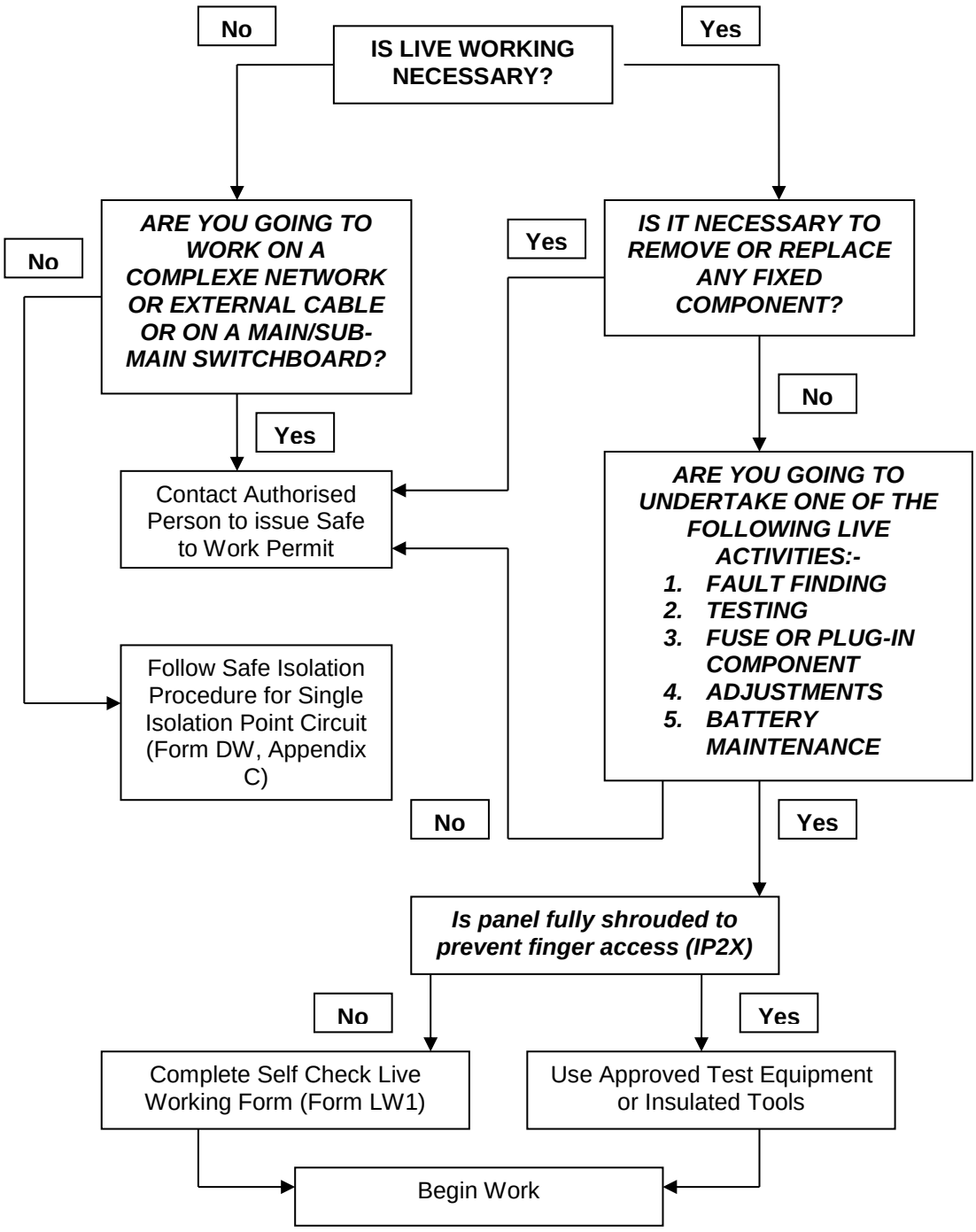
The effectiveness of this Electrical Safety Policy shall be monitored by the DP, AE (HV and LV) and AP (HV and LV).

The DP shall review this policy as defined at the front of this report, or at a minimum 3 year interval. Additional review may be required in light of changes to regulations or named persons.

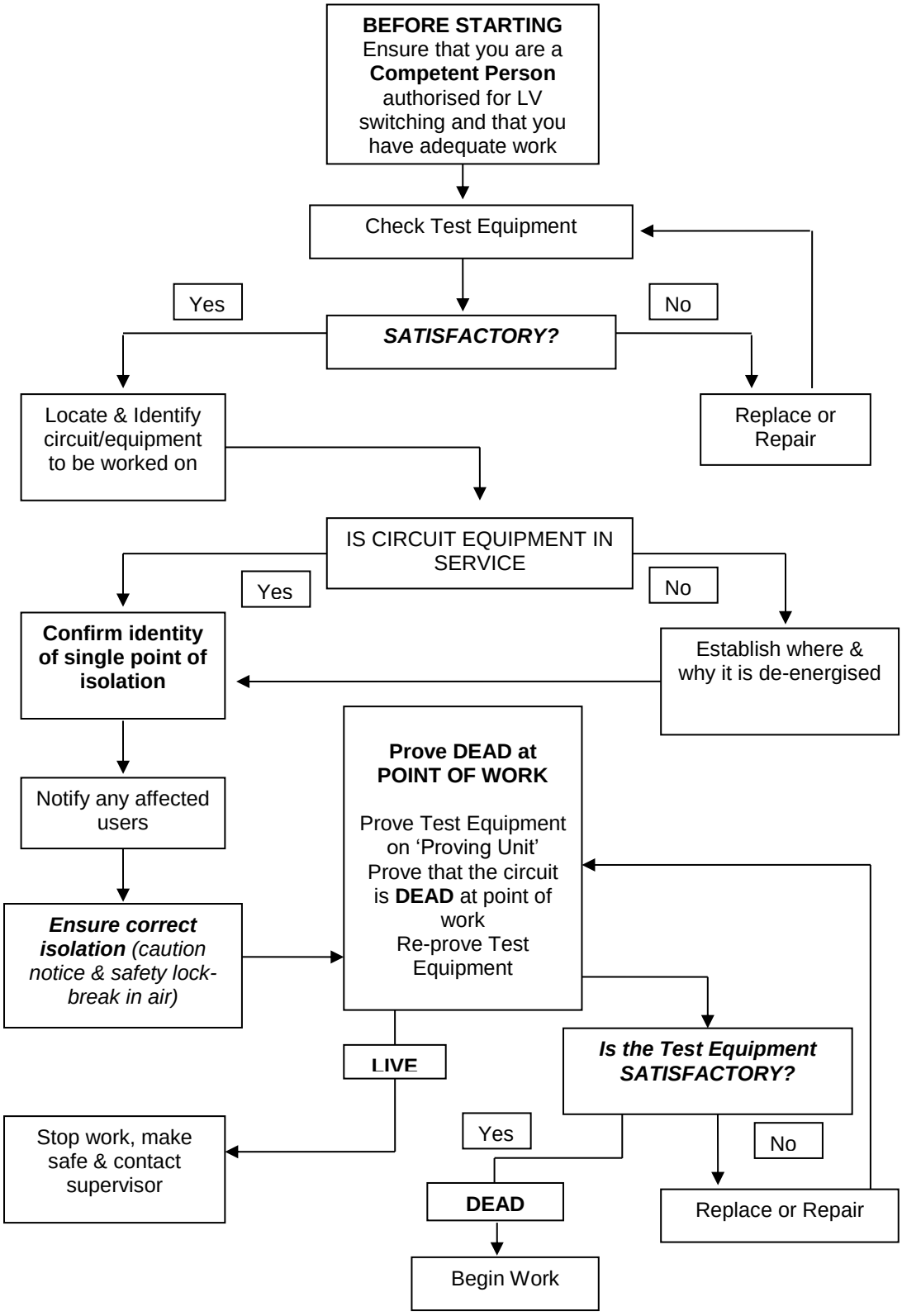
APPENDIX A

LV Network Procedure Flow Chart

LV NETWORK – WORKING PROCEDURE CHART



APPENDIX B

Safety Isolation Procedure Flowchart

SAFETY ISOLATION PROCEDURE FOR DEAD WORKING ON LOW VOLTAGE SYSTEMS
(Single Point Isolation)