

Electrical Safety Code of Practice

Reviews and Revisions

| Action | Date | Reason | Reviewer |
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1. Code of Practice Statement

Northumbria University is committed to the safe operation and maintenance of its electrical systems. In order to do this it will, monitor this Code of Practice, ensure its effectiveness, and ensure all electrical systems are managed without giving rise to danger.

This Electrical Safety Code of Practice has been written for the protection of those persons, whose employment involves them in using or carrying out work on Northumbria University's electrical systems and equipment and any other person who may be affected by the activities of the University.

This Code of Practice is in accordance with the requirement of: -

The Health and Safety at Work etc. Act 1974 and,
The Electricity at Work Regulations 1989;
Electricity Supply Regulations 1988;
Reporting of Incidents, Disease & Dangerous Occurrences Regulations 1995;
Workplace (Health, Safety and Welfare) Regulations 1992;
BS7671-2008 17th Ed IEE Wiring Regulations.

It is the duty of all persons who may be concerned with the operation of, or work upon, the electrical systems and equipment of Northumbria University to: -

- a) Comply with this Code of Practice and;
- b) Be thoroughly conversant with all legislation governing the work they may be called upon to undertake.

No employee will work on any electrical Low Voltage (LV) systems (50v - 1000v ac.) unless authorised or instructed to do so by an authorised or competent person. Only employees with the appropriate knowledge, skills and training will be authorised or instructed to work on LV electrical systems. All work on LV systems will be carried out in accordance with electrical Low Voltage Safety Rules and University House Rules.

Where appropriate, safety training and instruction will be given, together with the provision of safety devices, equipment and instruments to carry out the work in a safe and proper manner.



2. Introduction

2.1 Structure

Northumbria University is committed to providing for the safe operation and maintenance of the electrical systems, to monitor this Code of Practice, to ensure its effectiveness, and ensure all electrical systems are managed without giving rise to danger.

This Code of Practice forms the first part of a three-part framework which comprises the following elements.

- a) Code of Practice (this document)
 Outlines the overall responsibilities of the organisation and details the responsibilities of individuals.
- Electrical Operational Procedure Low Voltage Systems.
 Details the specific electrical safety requirements for competent and non-competent staff.
 Details testing protocols, frequencies, etc.
- c) House Rules

 Details the specific operational criteria that must be achieved for all electrical systems.

2.2 Legislative Requirements

This Electrical Safety Code of Practice has been developed for the protection of those persons whose employment involves them in using or carrying out work on Northumbria University's electrical systems and equipment, and any other person who may be affected by the activities of the University.

This Code of Practice is in accordance with the requirement of:

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It is the duty of all persons, who may be concerned with the operation of, or work upon the electrical systems and equipment of Northumbria University to:

- a) Comply with this Code of Practice and;
- b) Be thoroughly conversant with all legislation governing the work they may be called upon to undertake.

No employee will work on any electrical low voltage (LV) systems (50v - 1000v ac.) unless authorised or instructed to do so by an authorised or competent person. Only employees or contractors with the appropriate knowledge, skills and training will be authorised or instructed to work on LV electrical systems. All work on LV systems will be carried out in accordance with



Electrical Safety Code of Practice, Electrical Operational Procedure – Low Voltage Systems and House Rules.

3. Roles and Responsibilities

3.1 The Chief Operating Officer

The Chief Operating Officer, on behalf of the University will appoint a Senior Person as Designated Person to appoint in writing an Authorising Engineer who shall in turn appoint in writing sufficient Authorised Persons to provide the necessary cover for all systems and installations.

3.2 The Director of Campus Services

The Director of Campus Services is the Designated Person and is required to ensure that adequate human and financial resources are available to allow this code of practice to be implemented and adhered to.

3.3 Maintenance & Engineering Manager

The Maintenance & Engineering Manager is the Duty Holder and has imposed duties in connection with safety in the Electricity at Work Regulations and is required to ensure that:

- a) Suitable and sufficient risk assessments are carried out with respect to risk to persons and property for the operation and maintenance of the LV network;
- b) All LV systems are operated and maintained so as to prevent, so far as is reasonably practicable, danger to persons or property;
- c) The appointed competent person has the appropriate training, knowledge and experience to prevent danger;
- d) Only persons authorised to work on the LV network do so. All such authorised persons (University employees or otherwise) shall have the technical knowledge and experience to prevent injury unless such persons are under such degree of supervision as may be appropriate having regard to the nature of the work;
- e) Any consultants appointed to advise on the LV network can demonstrate their competence with respect to knowledge, skills and training and have sufficient resource;
- f) All University employees authorised to work on the LV network have the appropriate initial and refresher training;
- g) The maintenance contract for the inspection and testing of the University's LV installations is carried out in accordance with the maintenance contract;
- h) Those who undertake supervision of others, whose technical knowledge or experience is insufficient for them to undertake the work safely, are aware of their responsibilities. The degree of supervision and the manner in which it is exercised is for the duty holder to arrange to ensure that danger or injury is prevented;
- i) The effectiveness of LV maintenance policies is monitored. Without effective monitoring the duty holder cannot be certain that the requirement for maintenance of the LV system has been complied with;



j) All the above duties are discharged subject to sufficient resources being available and responsible for alerting the line management if resources are insufficient to discharge these duties.

3.4 Mechanical & Electrical Maintenance Co-ordinator

The Mechanical & Electrical Maintenance Co-ordinator assumes the responsibilities of the Duty Holder in their absence.

3.5 Executive Deans/Directors

Executive Deans and Directors are responsible for all electrical work, systems and equipment under their control. They must ensure that:

- a) Electrical systems and equipment are safe;
- b) Electrical systems and equipment are suitable for the task they are used for;
- c) Electrical systems are maintained and inspected as necessary;
- d) Appropriate risk assessments are carried out and recorded where necessary before electrical work is undertaken:
- e) Research/project work, in particular the construction of electrical rigs, is suitably riskassessed and safety devices are in place. This would include suitable emergency cut off points which are accessible;
- f) Electrical equipment is included in activity-based and/or machinery risk assessments, where appropriate;
- g) Suitable control measures are in place and followed;
- h) Staff, and students where appropriate, and contractors are provided with a safe working area, and/or are given sufficient information of any known hazards or risks to health and safety to enable them to work safely;
- i) Ensure equipment used by members of their staff is Portable Appliance Tested as appropriate;
- j) Staff have sufficient knowledge to recognise when portable appliances or any other electrical equipment may be damaged or otherwise present a risk, and to take it out of use;
- k) Any electrical contractors that they engage are suitably experienced and competent.

Within the University, Campus Services are responsible for all fixed electrical installations and infrastructure. Executive Deans/Directors are responsible for Faculty/Service Department-owned or leased equipment, including portable appliances, and for any wiring installations and equipment supplied from the fixed installation power socket or isolator.

Under no circumstances must Faculty/Service Departments (with the exception of competent persons authorised by Campus Services) interfere with the fixed electrical systems or give instructions to any contractor concerning any work on the electrical distribution system.

Examples of Faculty/Service Department areas of responsibility are experimental rigs, work activities in electronic and electrical workshops, portable electrical apparatus and equipment fitted to the fixed electrical systems, such as workshop and kitchen machinery. Electrical hazards must be considered in risk assessments and suitable control measures put into place to control the risk.





3.6 Faculty/Service Department Line Managers will ensure that:

- a) Their staff are aware of this code of practice and understand how it applies to them;
- b) Their staff are aware of the requirement placed upon them to carry out regular user checks of electrical equipment and to report any defects;
- c) Only electrical equipment that is in good condition and that is suitable for the environment in which it will be used in, and for the tasks it will be used for, is supplied for use by members of their staff.

3.7 Authorised/Competent Persons

The University recognises there are different levels of competency in relation to electrical work. Accordingly:

- a) No person shall be engaged in any work activity for which they do not possess the appropriate technical knowledge or experience necessary to prevent danger;
- b) Only Authorised or Competent Persons shall undertake work on any electrical system;
- c) Any Authorised or Competent Person carrying out work on an electrical system shall adopt approved safe working procedures so as not to give rise to danger;
- d) Electrical Contractors will abide by all Electrical Safety Operating Procedures and House Rules;
- e) No person shall use any defective electrical equipment and shall report any defects in electrical equipment to their line manager immediately;
- f) Ensure Permit to Work/Limitation of Access are completed for electrical projects or minor works in accordance with Safe Systems of Work Code of Practice;
- g) Ensure buddy system white board or Lone Worker Risk Assessment is completed where appropriate.

3.8 Named Persons

A Named Person is an individual who has:

- a) Received the necessary training;
- b) The necessary knowledge and experience;
- c) Been given permission in writing to carry out defined duties. These duties should be defined in a certificate of appointment or a limitation of access certificate, but not safe to work permits or certificates of authorisation for live working.

Contractors will abide by all Electrical Safety Operating Procedures and University House Rules



3.9 All Employees

The duties placed on the employee are equivalent to those placed on the employer in situations which are in their direct control. Employees must not put themselves in danger as a result of their lack of competence to carry out the tasks they are attempting. Employers are responsible for the safety of themselves and others at the place of work.

It shall be the duty of every employee while at work:

- a) To comply with the provisions of the specified statutory regulations so far as they relate to matters within their control;
- b) To co-operate with the employer, via the management and supervisory staff, so far as is necessary, to enable the employer to perform on and comply with the provisions of the Electricity at Work Regulations 1989;
- c) To undertake work in connection with electrical systems only where competent to do so;
- d) Appreciate the dangers involved in the work being undertaken;
- e) Recognise when such dangers are present;
- f) Undertake and implement safe working practices which remove the danger;
- g) Understand the different types of injury that could occur if the working methods used are faulty or ineffective;
- h) Receive sufficient first aid training so as to treat injuries caused by contact with electricity and electrical plant and machinery.

REMEMBER

NEVER WORK ON ELECTRICAL SYSTEMS UNLESS YOU HAVE RECEIVED THE NECESSARY TRAINING, HAVE THE APPROPRIATE EXPERIENCE AND HAVE BEEN AUTHORISED TO UNDERTAKE THE WORK.

4. Review

This procedure shall be reviewed annually by Campus Services and approved by the University Health and Safety Management Group.



Appendix 1 Northumbria University Electrical Safety Code for Low Voltage Systems Nominated Persons

| TITLE | APPOINTEES |
|--|---|
| Designated Person | Director of Campus Services – Damon Kent |
| Authorising Engineer (Independent to the University) | D Hargreaves, Hargreaves Technical Services |
| Duty Holder | Maintenance & Engineering Manager – David Ballantyne |
| Deputy Duty Holder | Mechanical & Electrical Maintenance Co-ordinator – Rob Hossack |
| Authorised Persons | Maintenance & Engineering Manager – David Ballantyne |
| Competent Persons | Campus Services Electricians: D Carey S Bryden A Evans M Yates |
| | Electrical Contractors for HV and LV systems is Integrated Utility Services. |
| Named Persons | Maintenance, Grounds Maintenance and Facilities Support Supervisors Facilities Support Assistants All other Academic/Support staff as appropriate Persons issued with Limitation-of-Access document authorising entry to switch-room. Contracting Staff |
| Responsible Officer | Executive Deans and Directors |