

Electrical Safety Policy

Version 1 - Draft

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Electrical Safety Policy

1. Application

This policy applies to all Fenland District Council workplaces, work activities and premises.

2. Introduction

Electricity is present in the majority of the Council workplaces and is used by all employees and service users. This document outlines the Council's policy and the arrangements in place to ensure that electrical systems and equipment are safe.

3. Aims & Objectives

- Ensure the risks associated with electricity are adequately controlled.
- Ensure that all fixed electrical systems (in buildings owned or occupied by the Fenland District Council) are tested within the specified frequency
- Ensure electrical appliances are tested at suitable intervals.

4. Definitions

Fixed electrical systems – electrical systems which are normally part of the structure of the building or wired into the building circuit and are not portable. E.g. emergency lighting systems, fuse boards and fire alarms.

Electrical appliances (also called Portable Electrical Equipment) – electrical equipment which does not form part of the fixed system is considered to be an electrical appliance. They may be fitted with a plug but not be very portable e.g. washing machines.

Some electrical appliances may be wired directly into the fixed electrical system via an electrical spur or isolator e.g. air conditioning units, wall heaters, washing machines, projectors and hand driers.

Competent Person – Any person contracted or employed to carry out electrical work must be competent and have a suitable level of training and experience to undertake the task in a safe manner and leave the equipment or system in a safe condition. The level of competency required will vary according to the task to be completed. E.g. appliances wired directly into the fixed electrical system or equipment which is 3 phase must be tested by a qualified electrician.

User checks – An external visual examination to identify defects in equipment, which can be undertaken by the employee who will use the equipment. (E.g. checking the condition of the electrical lead or plug).

Formal visual inspection – Detailed formal inspection the results of which are recorded and undertaken by a trained competent person at specified intervals.

Combined visual inspection and testing - Detailed formal inspection and testing undertaken by a competent person at specified intervals.

Responsible Person - (This is usually the Corporate Buildings and Facilities Manager) - A designated person who has responsibility for the maintenance of the premises and the systems within it.

Live Working - Working on or near equipment that is at a voltage as a result of being connected to a source of electricity. The live parts are accessible so that they can be touched either directly or indirectly by means of some conducting object.

5. Arrangements for Applying the Policy

The Council's arrangements for applying the electrical safety policy are detailed below.

No works, repairs or modifications to fixed electrical equipment or electrical appliances may be undertaken unless they are undertaken by an authorised and competent person.

5.1.1 Risk Assessments

Where the normal use of electrical equipment presents a significant risk a risk assessment must be undertaken. The use of well maintained electrical equipment for the purpose for which it was intended may not require a risk assessment.

Work on fixed electrical systems may have a number of associated risks with the work and these should be fully considered and controlled prior to the onset of work. A Permit to Work Form should be completed and risk assessments carried out where necessary. Issues such as the presence of asbestos, proximity of service users and alternative accommodation may need to be considered.

5.1.2 Selection of Electrical Equipment

Electrical equipment should be selected after carefully considering the intended use and the conditions under which it will be used. Equipment should be suitable for the purpose and carry a CE (or equivalent standard) mark.

5.2. Electrical Equipment and Appliances

5.2.1 Use of electrical equipment

Where electrical equipment or appliances are to be used outdoors or in hazardous environments a suitable risk assessment shall be completed. All electrical equipment used outdoors is required to have residual current protection (RCD). The RCD used to provide this protection is required to have a residual operating current not exceeding 30mA.

The socket outlet used to supply equipment used outdoors should have RCD protection and this is normally provided by an RCD installed in the consumer unit or distribution board. A suitable waterproof externally mounted socket outlet incorporating residual current protection may be used where the rating does not exceed 30mA. If there is any doubt a plug-in portable RCD device/RCD adaptor should be used.

5.2.3 Repair of electrical appliances

No repairs or modifications to electrical appliances are to be carried out unless they are undertaken by an authorised and competent person. Where repairs are carried out the equipment must be subjected to combined inspection and testing and the equipment inventory updated.

5.2.4 Privately owned electrical appliances

Employees wishing to bring their own equipment onto the premise must get approval and authorisation from their line manager. Privately owned electrical appliances should be new and have a CE label. Arrangements are to be made with the Assets and Projects Team to have the equipment added to the equipment inventory and should be subjected to an electrical appliance test on the next session of testing that occurs. If the appliance is not new, then it *must* be electrically tested before being put into use.

5.2.5 Contractors

Contractors should not use Council's electrical equipment during their activities. The Assets and Projects Team and those arranging for contractors to undertake work should ensure that all electrical contractor's equipment used on Council property is subject to a programme of inspection and testing.

5.2.6 Servicing and testing of electrical appliances

Servicing of electrical appliances should be undertaken in accordance with any instructions from the manufacturer.

All electrical appliances must be routinely examined to ensure that they are safe. There are three levels of examination which should be undertaken; user checks, formal visual inspection and detailed inspection and testing.

The frequency of inspection and testing will be based upon an assessment which considers the following:

- The environment in which the equipment is used
- Frequency and type of use to which the equipment is subjected
- The age and condition of the equipment
- The level of portability of the equipment.

• User checks

Approximately 95% of faults and damage to electrical appliances can be identified by visual inspection. A brief visual inspection should be carried out on frequently used or movable equipment each time it is used. Appendix 1 describes what to look for during user checks which might indicate that the equipment may not be safe to use.

• Formal visual inspection

In addition to user checks, equipment which is frequently used or which is used in harsh conditions should receive a formal visual inspection. Examples of equipment that might require formal visual inspection include hand held equipment e.g. workshops, handheld/movable equipment which is frequently used outside. The necessity and frequency of formal visual inspections should be based upon a risk assessment but must not exceed six months.

A formal visual inspection should be undertaken routinely by a trained and competent person. The inspection should include the items indicated in Appendix 2. The formal visual inspections should be recorded.

The formal visual inspection should not include taking the equipment apart. This should be confined, where necessary, to the combined inspection and testing.

Combined visual inspection and testing

The Corporate Buildings and Facilities Manager should ensure that an inventory of all electrical appliances is prepared and maintained with the individual identification number for all equipment is recorded.

Electrical appliances must be inspected and tested on a regular basis and a suitable label affixed. The label should indicate:

- 1. the date of test
- 2. the date due for re-test
- 3. the item identification used within the equipment inventory.

The **maximum** intervals for testing are:

Type of Equipment	Period
Portable Appliance: An appliance of less than 18kg in mass that is intended to be moved whilst in operation or an appliance which can easily be moved from one place to another e.g. vacuum cleaner, etc.	Every 2 years
Movable Equipment: This equipment is either: 18 kg or less in mass and not fixed, e.g. electric fire or equipment with wheels, castors or other means to facilitate movement by the operator as required to perform its intended use, e.g. pressure washer, air conditioning unit.	Every 2 years
Hand Held Equipment or Appliances: This is portable equipment intended for use to be held in the hand during normal use, e.g. drill, etc.	Annual
Stationary Equipment or Appliances: This equipment has a mass exceeding 18kg and is not provided with a carrying handle, e.g. refrigerator.	Every 4 Years
Fixed Equipment / Appliances: This is equipment or an appliance which is fastened to a support or otherwise secured in a specific location, e.g. room heater.	Every 4 Years
Information Technology Equipment: Information technology equipment includes electrical business equipment such as computers, laptops and mains powered telecommunications equipment, and other equipment for general business use, such as mail processing machines, VDU's, photo-copiers.	Every 4 Years (annual if laptop is not in a fixed environment)

If as a result of inspection and testing, equipment is found to be defective it must be removed from use and effectively repaired and retested or discarded.

5.3. Fixed Electrical Systems

5.3.1 Servicing and testing of fixed electrical system

Premise managers must ensure that all fixed electrical systems at premises are inspected and tested in accordance with the 17th edition of the IEE Wiring Regulations BS7671:2008.

	Maximum interval between testing		
Swimming Pools	12 months		
Leisure centres excluding pool	3 years		
Corporate buildings / offices	5 years		
Leased properties	In line with property type and at change		
	of tenancy.		

The competent person undertaking the testing must provide a certificate and this must be kept along with records of maintenance undertaken.

5.3.2 Repair and alteration of fixed electrical systems

No repair or modification to fixed electrical installation may be undertaken unless they are undertaken by an authorised and competent person who is accredited with NICEIC, ECA or an equivalent organisation.

Any alterations must comply with the requirements of the 17th Edition of the IEE Wiring Regulations. On completion of the work a certificate must be issued which must be retained by the premise manager.

5.3.3 Live Working

"Live working" is working on or near equipment that is at a voltage as a result of being connected to a source of electricity. The live parts are accessible so that they can be touched either directly or indirectly by means of some conducting object.

"Live" working must not be undertaken unless there is no other method of undertaking absolutely essential work. If live working is to be undertaken, a safe system of work must be produced and followed and this system will comply with the requirements of HSG 85 Electricity at Work – Safe Working Practices. This type of work must not be undertaken without prior discussion with the Assets and Projects - Building Surveyor and the Corporate Health and Safety Team.

No person may work on or near live conductors or equipment unless:

- It is not reasonably practicable for it to be dead; and
- Suitable and sufficient precautions are in place to prevent injury; and
- An electrical permit to work has been issued

5.3.4 Earthing / bonding

The use of competent contractors will normally ensure that earthing is reinstated or installed where necessary. Adequate earthing of equipment and fittings is required and should be maintained during refurbishment works particularly in kitchens and toilets during refits.

5.3.5. Electrical distribution boards/cupboards/substations and plant rooms

Materials must not be stored on or in distribution boards, cupboards and substations as they may present a fire hazard and restrict access for isolation. Access to these facilities must be restricted to authorised personnel only and this is normally achieved by them being securely locked.

Electrical distribution boards/cupboards/substations must display signage to warn of the danger of unauthorised access.

5.3.6 Lightning protection systems

Where lightning protection systems have been installed in a premise they must be adequately maintained. The main equipotential bonding conductors for the system should be tested every 5 years as part of the fixed electrical system test.

6. Key Accountabilities

6.1 Staff with responsibility for arranging works to premises

Staff with responsibility for arranging work to premises must ensure, as far as is reasonably practicable, that:

• Work may only commence when measures to deal with any identified hazards have been agreed.

• Where work to the fixed electrical system is undertaken, that it complies with the 17th Edition of the IEE regulations and is undertaken by competent and qualified persons and a suitable certificate is provided on completion.

6.2 Premise Managers/Responsible Person

All Managers across the full range of the Council's services to whom "Responsible Person" responsibilities have been delegated will ensure, so far as is reasonably practicable, that the following requirements are met at the premises under their control.

• Adequate funds are made available to meet the costs of the required testing and inspection arrangements.

• Arrangements are in place to ensure that adequate safety precautions exist to ensure that employees and other persons are not exposed to electrical hazards.

• A Contractors Permit to Work is completed prior to the start of any work.

• A programme of inspection and testing for electrical appliances is in place which considers the frequency of use, environment of use and nature of the equipment and is no greater than the maximum indicated by in section 5.2.6.

• Where the testing of a fixed electrical system or electrical appliance identifies that remedial works are required the remedial work is undertaken in an identified timescale or is taken out of use.

• Where work has been undertaken on the fixed electrical system the appropriate certificate is obtained from the contractor on completion and is retained.

• Each item of electrical appliance is identified and labelled with a reference number, the date of inspection and the date on which it is next to be inspected.

• An inventory of electrical appliances is created and maintained.

• Arrangements are in place to ensure that damaged or defective equipment is taken out of use immediately and use is prevented until suitable disposal or competent repair is arranged.

• No "live" work is undertaken unless absolutely essential, and that detailed arrangements for the work are agreed in advance with the Assets and Projects Team.

6.3 Managers

Managers with line management responsibility for employees and equipment must ensure that so far as is reasonably practicable that:-

• Only equipment which is authorised is in use.

• The relevant premise manager is notified of any additions, deletions or transfers of electrical equipment.

• Electrical appliances are made available for inspection and testing in accordance with the devised programme. This includes Fenland District Council owned equipment which is normally used by employees or others in the district.

• Electrical equipment which has not been inspected or tested as required by the programme is taken out of use until it has been inspected and tested.

• Adequate information, instruction and training is provided to employees about the safe use of electrical equipment. Reference should be made to the manufacturer's restrictions and instructions for use.

• Repairs or modifications to electrical equipment and systems are undertaken only by competent and authorised persons.

6.4 Employees

Every employee of the District Council will:

• Take reasonable care for the health safety and welfare of themselves and that of others who may be affected by their activities in relation to any contact or involvement with electrical equipment or systems.

• Co-operate in the implementation of the Council's Electrical Safety Policy, and any organisational arrangements and procedures.

• Only use electrical equipment which is authorised for use at work.

• Report damaged or defective electrical equipment and systems to their manager.

7. Legislative Framework

- The Health and Safety at Work etc Act 1974
- Electricity at Work Regulations 1989
- IEE Wiring Regulations 17th Edition BS7671:2008

8. Equality

This policy has been Equality Impact Assessed. The policy aims to meet the diverse needs of the workforce, ensuring that none are placed at a disadvantage over others. The Equality Impact Assessment confirms that this policy meets the standards.

9. Further Advice and Information

This policy document is for general guidance only. If you need any further advice on how to apply this policy please contact the Corporate Health and Safety Team.

Further background information on this topic is available on the following Website: <u>www.hse.gov.uk</u>

Appendix 1

User checks

Look at the equipment critically for signs that it may not be in sound condition, for example:

- damage (apart from light scuffing) to the cable sheath;
- damage to the plug, for example the casing is cracking or the pins are bent;
- inadequate joints, including taped joints in the cable;
- the outer sheath of the cable is not 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 some loose parts or screws;
- evidence of overheating (burn marks or discoloration).

These checks also apply to extension leads and associated plugs and sockets. The user should make visual checks when the equipment is taken into use and during use. Any faults should be reported to management and the equipment taken out of use immediately.

Appendix 2

Formal Visual Inspections

Formal visual inspections are in addition to user checks and combined inspection and testing. The necessity and frequency of formal visual inspections should be based upon a risk assessment but must not exceed six months. An example of equipment that might be subject to formal visual inspections is a drill in a workshop. A competent person should carryout the formal visual inspections and should include the checks normally undertaken by users in Appendix A and the inspection should be recorded.

Visual checks

- damage (apart from light scuffing) to the cable sheath;
- damage to the plug, for example the casing is cracking or the pins are bent;
- inadequate joints, including taped joints in the cable;

• the outer sheath of the cable is not 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 some loose parts or screws;

• evidence of overheating (burn marks or discoloration).

Additional checks that should be included as part of the formal visual inspection are:

• removing the plug cover and ensuring that a fuse is being used (e.g. it is a fuse not a piece of wire or a nail etc);

• checking that the cord grip is effective and correctly secured;

• checking that the cable terminations are secure and correct, including an earth where appropriate, and there is no sign of internal damage, overheating or ingress of liquid or foreign matter.

N.B. Where a moulded plug is fitted to appliance the additional checks will not be possible.

Appendix 3

Equality Impact Assessment

To be completed and attached to any procedural document when submitted to the appropriate committee for consideration and approval.

	Insert Name of Policy / Procedure		
	Electrical Safety Policy	Yes / No	Comments
1.	Does the policy / guidance affect one group less or		
	more favourably than another on the basis of:		
	 Disability – learning disabilities, physical 	No	
	disability, sensory impairment and mental		
	health problems		
	 Gender reassignment 	No	
	 Pregnancy / maternity 	No	
	Race	No	
	Religion or belief	No	
	• Age	No	
	• Sex	No	
	 Sexual orientation including lesbian, gay and 	No	
	bisexual people		
	 Marriage / civil partnerships 	No	
2.	Is there any evidence that some groups are affected	No	
	differently?		
3.	If you have identified potential discrimination, are any	N/A	
	exceptions valid, legal and/or justifiable?		
4.	Is the impact of the policy/guidance likely to be	No	
	negative?		
5.	If so can the impact be avoided?	N/A	
6.	What alternatives are there to achieving the policy /	N/A	
	guidance without the impact?		
7.	Can we reduce the impact by taking different action?	N/A	