

Electrical Compliance Procedures

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Electrical compliance procedures

The purpose of this document is to set out specific guidance to ensure the safety of fixed electrical installations in the London Borough of Lambeth’s housing stock. Installations within non domestic premises and common parts of tenanted buildings, owned and managed are to be inspected,

maintained and serviced to required current standards and inspected at appropriate intervals to minimise the risk of electrocution, fire, damage to property, injury and or death.

By having a written detailed Electrical Safety Procedure the London Borough of Lambeth Housing Management is able to ensure that a uniform and professional approach is adopted throughout the organisation. The risk of not having an appropriate arrangement in place is that systems are not serviced in accordance with relevant current legislation and good practice guidance.

This procedure will normally be reviewed annually but will also be reviewed in the light of new legislation / regulation as and when necessary. The standard process for electrical testing includes a fifteen per cent randomly generated post inspection regime to ensure compliance and for audit purposes.

1. Roles and responsibilities

1.1	<p>For the purposes of this arrangement, the Chief Executive of The London Borough of Lambeth has overall responsibilities as the Landlord: however these responsibilities are delegated to appropriate officers within Housing Management.</p> <p>Landlords are required by law to ensure:</p> <ul style="list-style-type: none"> • That the electrical installation in a rented property is safe when tenants move in and maintained in a safe condition throughout its duration. • That a House in Multiple Occupation (HMO) has a periodic inspection carried out on the property every five years. If a property is not an HMO, there is no legal obligation to do this. However, it is recommended that a periodic inspection and test is carried out by a registered electrician on rental properties at least every five years. • That any appliance provided by the landlord is safe and has at least the CE marking (which is the manufacturer’s claim that it meets all the requirements of European law). • To meet these requirements a landlord will need to regularly carry out basic safety checks to ensure that the electrical installation and appliances are safe and working. <p>Within the scope of this procedure, a Landlord is defined as <i>“the person providing residential accommodation for occupation by others on the basis of a tenancy agreement for a periodic term”</i>.</p> <p>Lambeth Housing Management is aware of the risk of serious injury and fire from electricity. It accepts its responsibilities to ensure the highest standards are maintained with regard to;</p> <ul style="list-style-type: none"> • Managing installations and services. • Servicing, repair and replacement of equipment • Maintenance and renewal of electrical installations. 		
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2. Installations falling within policy scope

2.1	<p>An electrical installation is made up of all the fixed electrical wiring and equipment that is supplied from the point of the electricity meter and beyond. It includes the cables that are typically hidden in the fabric of the building (walls, floors and ceilings), accessories (sockets, switches and light fittings), and the distribution equipment including all fuses, circuit-breakers and residual current devices (RCDs).</p> <p>Typical systems covered include:</p> <ul style="list-style-type: none"> • Communal landlord installations • Non domestic electrical installations • Emergency lighting systems • Fixed fire alarm installations • Lightning conductors 		
2.2	<p>This procedure covers repair, upgrading, testing, inspection and reporting of non-domestic electrical installations. All electrical repairs, upgrades and renewals will be categorised to ensure that the correct levels of priority are given. Housing Management will take specific account of any vulnerability or health and safety requirements during the prioritisation process for these works.</p>		
2.3	<p>Electrical systems will be repaired, renewed, upgraded and tested in accordance with industry guidance and manufacturers' recommendations.</p>		

3. Statutory framework

3.1	<p>There are two main Acts of Parliament that impose a statutory duty on landlords with respect to the safety of electrical equipment:</p> <ul style="list-style-type: none"> • The Consumer Protection Act 1987 landlord's electrical testing obligations. • The Health and Safety at Work etc. Act 1974 <p>The Consumer Protection Act affects all persons who let property in the course of their business because it defines them as "suppliers", i.e. they are supplying goods to the tenant. There are several items of secondary legislation under the umbrella of the Consumer protection Act which are directly relevant to the supply of electrical goods, including:</p> <ul style="list-style-type: none"> • The Low Voltage Electrical Equipment Regulations 1989 		
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	<ul style="list-style-type: none"> • The Electrical Equipment (Safety) Regulations 1994 • The General Product Safety Regulations 1994. • The Plugs and Sockets etc. (Safety) Regulations 1994 		
3.2	<p>Apart from the Landlord's common law duty of care, the Landlord & Tenant Act 1985 (and several other statutory regulations see below) requires that the electrical equipment is safe at the start of every tenancy and maintained in a safe condition throughout the tenancy.</p> <p>Electrical hazards are also covered by the Housing Health and safety Rating System under the Housing Act 2004.</p> <p>In the case of commercial property and houses in multiple occupation there is a statutory duty under the Regulatory Reform Fire Safety Order 2005 for the responsible person (the property manager) to carry out annual Fire Safety Risk Assessments, which include electrical safety risks.</p> <p>If you let property you must ensure that the electrical system and all appliances supplied are safe. Failure to comply with the Electrical Equipment (Safety) Regulations 1994 and The Consumer Protection Act 1987 is a criminal offence.</p> <p>These regulations are enforced by the Health & Safety Executive.</p> <p>In essence, these regulations impose a duty on landlords to ensure that all electrical equipment supplied by them is safe for use by the tenant. The Consumer Protection Act provides a defence of 'due diligence', i.e. a landlord can defend a contravention of the Act if he can demonstrate that he took reasonable steps to avoid committing the offence.</p>		
3.3	<p>The Health and Safety at Work etc. Act places a duty of care upon both employer and employee to ensure the safety of all persons using the work premises.</p> <p>This general requirement has been galvanised by several recent regulations, some of which explicitly extended their requirements to cover "<i>self employed persons</i>" and "<i>all persons affected by their operations</i>". In the Electricity at Work Regulations, a self-employed person is defined as follows:</p> <p><i>"A self-employed person is an individual who works for gain or reward otherwise than under a contract of employment whether or not he employs others."</i></p> <p>This definition applies to landlords and agents; similarly, tenants would appear to be a group of persons affected by the landlord's operations. This suggests that electrical regulations, which are ostensibly directed at employers and the work place, are equally applicable to landlords, their premises and their tenants.</p>		

<p>Some of the specific regulations that are applicable to electrical installations include:</p> <p>Regulation 3(1b) of The Management of Health and Safety at Work Regulations 1992:</p> <p><i>"Every employer shall make a suitable and sufficient assessment of: the risks to the health and safety of persons not in his employment arising out of or in connection with the conduct by him or his undertaking"</i></p> <p>Regulation 3 of the Electricity at Work Regulations:</p> <p><i>"It shall be the duty of every employer and self-employed person to comply with the provisions of these Regulations in so far as they relate to matters within his control."</i></p> <p>Regulation 4(2) of the Electricity at Work Regulations:</p> <p><i>"As may be necessary to prevent danger, all [electrical] systems shall be maintained so as to prevent, so far as is practicable, such danger."</i></p> <p>In summary, a landlord has duties both as a 'supplier of goods' and as the 'person responsible' for an electrical installation. As a 'supplier of goods' he must ensure that goods are checked before the tenant takes them over and as a 'person responsible' he must ensure an adequate system of maintenance. A regular inspection programme is an essential part of any maintenance system. For this reason, and to provide a demonstration of due diligence, 3-Step Safety Check recommends an annual safety inspection of all residential lets.</p> <p>When do landlords need to complete an electrical inspection?</p> <p>There is no a statutory period for completing electrical safety inspections or maintenance. However there are several authoritative documents that suggest suitable intervals including:</p> <ul style="list-style-type: none"> • The Institute of Electrical Engineers (IEE / MIET) - Code of Practice for in-service inspection and testing of electrical equipment. • Health and Safety Executive (HSE) - Maintaining portable and transportable electrical equipment. • HSE - Maintaining portable electrical equipment in hotels and tourist accommodation. • HSE - Maintaining portable electrical equipment in offices and other low risk environment. • IEE - Inspection & Testing Guidance Note 3. Landlords electrical testing. 		
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	<p>Again the landlord/tenant scenario is not explicitly covered in any of the above documents. However, the Code of Practice for in-service inspection and testing of electrical equipment, states:</p> <p>"The relevant requirement of the Electricity at Work Regulations is that equipment shall be maintained so as to prevent danger. Inspection and testing are means of determining whether maintenance is required. The frequency of inspecting and testing will depend upon the likelihood of maintenance being required and the consequence of the lack of maintenance. No rigid guidelines can be laid down, but the factors influencing the decision will include the following:</p> <ul style="list-style-type: none"> • The environment - equipment installed in an undisturbed, controlled environment such as an office will suffer less damage than equipment in an arduous environment. • The users - if the users of equipment report damage as and when it becomes evident, hazards will be avoided. Conversely, if equipment is likely to receive unreported abuse, more frequent inspection and testing is required. • The equipment construction - the safety of a Class I appliance is dependent upon a connection with the earth of a fixed installation. If the flexible cable is damaged the connection with earth can be lost. • The equipment type - hand-held appliances are more likely to be damaged than fixed appliances. If they are also Class I the risk of danger is increased. " <p>The same document also provides guidance on the frequency of inspection for various situations ranging from construction sites to offices and shops. An examination of this guidance shows that the landlord/tenant situation falls between what the IEE describe as a "hotel" situation and a situation where "equipment is used by the public".</p>		
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4. Management and implementation of work activities

4.1	Before any individual can be put to work or placed in an environment which has the risk of electrical hazards the level of training, experience and competence must be formally assured so as to prevent or eliminate, so far as reasonably practical, the risk of danger.		
4.2	The London Borough of Lambeth Housing Management will employ contractors who hold current membership of an independent body (currently NICEIC, The National Inspection		

	<p>Council for Electrical Installation Contracting) in order to independently verify that Housing Management I has the required arrangements in place and also that it conforms to the standards for undertaking electrical work. Membership through the competent person's scheme also facilitates 'notification of electrical work to local Building Control' as required by Part P of the Building Regulations.</p>		
4.3	<p>Contractors and Sub-contractors must fully comply with this procedure, either through compliance with their own approved policy or through full integration into the London Borough of Lambeth electrical compliance policy. It will also be a prerequisite of any electrical contract, or otherwise, that electrical contractors are members of an approved electrical body (NICEIC, ECA) and that such contractors comply with the principles set out within this procedure. The control of work undertaken by contractors or subcontractors and its supervision will be expected to be the same as for direct staff, and will be the responsibility of the contractor / subcontractor.</p>		
4.4	<p>The Design and Installation of Systems and Equipment will be to standards not less than those contained in Electrical Specifications issued by the London Borough of Lambeth (and as part of the Employer's Requirement in the case of Design and build schemes), and which will be updated as required to reflect compliance with British and European Standards, Codes of Practice and the Institution of Electrical Engineers (IEE) Wiring Regulations (current edition).</p>		
4.4	<p>The electrical design specification for new works and for alterations to existing installations will be carried out by suitably qualified and experienced persons. Major / complex electrical work involving the development of design specifications will be developed / validated by an appropriately qualified Electrical Consultant in conjunction with the London Borough of Lambeth Manager responsible for the work.</p>		
4.5	<p>Electrical equipment, fittings, materials, and components incorporated into electrical installations will comply with appropriate British and / or European standards.</p>		
4.6	<p>Managers shall ensure that a record is kept on Lambeth's IT systems for all maintenance and tests carried out on electrical systems, plant, and equipment.</p>		

5. Testing and maintenance

5.1	<p>Periodic testing and inspection</p> <p>The statutory/regulatory requirements governing the periodic electrical installations inspections are as follows:</p> <ul style="list-style-type: none"> • The Electricity at Work Regulations imposes duties in respect of systems, electrical equipment and conductors, which includes fixed installations and other equipment such as portable appliances. The Regulations make no specific stipulations on examination and testing, but require all systems to be maintained to prevent "danger" as far as is reasonably practicable. • The IET Wiring Regulations (Seventeenth Edition) BS 7671 2008 are non-statutory regulations. These regulations require tests and inspections of new or altered electrical installations and recommend periodic inspection and testing on existing electrical installation. 		
5.2	<p>Periodic testing and inspection – management</p> <ul style="list-style-type: none"> • Periodic electrical test and inspections to domestic accommodations (rented house / flats) are NOT covered within this arrangement. • Periodic electrical test and inspections should be carried out to non-domestic buildings and common parts of tenanted building every 5 years. <p>To meet current statutory/regulatory requirements governing the periodic electrical installations inspections, Periodic electrical testing and inspections need to be carried out, with funding made available for remedial works.</p> <ul style="list-style-type: none"> • All inspections and test carried out on non-domestic and communal electrical installations will be held on the council's 'Northgate' system. • Only skilled persons as defined by BS 7671 2008 (Requirements for Electrical Installations) including all current amendments will be authorised to carry out Inspection and Testing. A person shall be deemed skilled to carry out the appropriate Inspection and Testing only if she/he has sufficient knowledge and experience of the test equipment, the installation being tested and testing procedures. All Electricians should have successfully completed City and Guilds 2382 (17th Edition) City and Guilds 2391 (Inspection, Testing and Certification of Electrical Installations). • Except for undertaking unforeseen emergency repairs whilst carrying out the Inspection and Testing regime (ie Code 1 faults), no repairs or rectification works shall be started without first obtaining the correct authority from 		

	<p>the London borough of Lambeth Housing Management Team.</p> <ul style="list-style-type: none"> • All new installations shall be provided with an Electrical Installation Certificate complete with a Schedule of Inspections and Test Results. The documents shall be suitably completed and in full compliance with BS 7671: (2008) Requirements for Electrical Installations., Guidance Note 1 (Selection and Erection) and all current amendments. • Records shall be provided in full accordance with BS 7671 2008 Requirements for Electrical Installations and Guidance Note 3 (Inspection and Testing) including all amendments. Original Inspection certificates must be provided to the London Borough of Lambeth Housing Management. • Test equipment shall comply with the requirements of BS 7671 2008 Requirements for Electrical Installations and Guidance Note 3 (Inspection and Testing), and including all amendments. <p>The London Borough of Lambeth Housing Management will ensure that the periodic inspection takes into account all relevant circumstances including:</p> <ul style="list-style-type: none"> • Adequacy of earthing and bonding • Suitability of the switchgear and control gear, for example, old fuse boxes with double-pole fusing and/or wooden enclosures, which are likely to need replacing. • Serviceability of accessories and light fittings, for example, older round-pin sockets, sockets mounted on skirting boards, round pattern lighting switches and braided flexible cords connecting ceiling roses to lamp holders, which may require replacement due to unsuitability or deterioration. • Types of wiring systems and their condition, for example, cables coated in black rubber (phased out in the 1960s) which may be in poor condition and need replacing. • Extent of any wear and tear, damage or other deterioration of other parts of the installation. • Presence of adequate identification and notices, and • Changes in use of the premises which have led to, or might lead to, deficiencies in the installation. 		
5.3	<p>Periodic inspection report format</p> <p>The contractor carrying out the inspection will provide a periodic inspection report (PIR) to record the findings of the inspection. In addition to the main body of the report, which will identify departures from the requirements of BS 7671 and provide an overall assessment of the suitability of the installation for continued use, the report should be accompanied by schedules of inspection and test results.</p>		

<p>The overall assessment section(s) of the report should describe the overall condition as either 'satisfactory', in which case no immediate remedial work is required, or 'unsatisfactory' which means remedial work is required to make the installation safe to use.</p> <p>The observations and recommendations should take due account of the results of the inspection and testing. They should be based on the requirements of the issue of BS 7671 current at the time of the inspection, not on the requirements of an earlier standard current at the time the installation was constructed.</p> <p>The observation(s) should be provided in an accurate and easily-understandable manner.</p> <p>Any relevant observation recorded by the contractor in the 'observations and recommendations' section of the report should be accompanied by a recommendation code to indicate the action needed. Further detail on the codes is given below.</p> <p>Code 1 Danger present. Risk of injury. Immediate action required Code 2 Potentially dangerous – Urgent remedial action required Code 3 Improvement recommended</p> <p>The contractor will also give a summary of the inspection in the report, which will give a clear indication of the condition of the electrical installation, taking into account all relevant circumstances. Once the necessary remedial work has been completed, an appropriate certificate should be issued to confirm that the remedial work has been carried out in accordance with BS 7671.</p> <p><u>Code 1</u></p> <p>Code 1 will be recorded for example where there are, accessible live conductors due to damage, poorly modified enclosures or removed maintenance panels. Incorrect polarity would also attract a code C1 as it may allow conductive parts, not normally expected to be live, to become live.</p> <p>Where a code C1 fault is identified the contractor will take immediate action to rectify the fault. A blank works order will be raised at the time the testing order is created for the contractor to 'vary' with the works required. This action satisfy the duties imposed on the inspector and others by the Health and Safety at Work etc, Act 1974 and the Electricity at Work Regulations 1989.</p> <p><u>Code 2</u></p> <p>The phrase "potentially dangerous" is designed to point towards a risk of injury from contact with live parts after a sequence of</p>		
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	<p>events. A sequence of events could mean that an individual would need to move, open or gain access to live parts through a day to day task that would not be expected to give access to live parts, for example: If an isolator in a locked cupboard had a damaged casing, leaving exposed live parts that could not be accessed without the use of access equipment, such as a specialist tool or key this would be considered a code C2. An individual would need to gain access to the cupboard before coming into contact with live parts and the potential for risk of injury is high. The lack of an adequate earthing arrangement for an installation, the use of utility pipes as the means of earthing or an undersized earthing conductor (established by use of the adiabatic equation in Regulation 543,1,3) will also warrant a code C2 observation because a primary fault would be needed in order for these scenarios to become potentially dangerous. It should be noted that with a C2, there is no leeway for unsatisfactory versus satisfactory, as a code C2 can only be given an unsatisfactory overall result. With this new classification system there is very little area for confusion as both codes C1 and C2 attract only unsatisfactory report findings.</p> <p>The London Borough of Lambeth Housing Management should be advised that, whilst the safety of those using the installation may not be at immediate risk, remedial action should be taken as soon as possible to improve the safety of the installation.</p> <p><u>Code 3</u></p> <p>A code C3 implies that the installation is not necessarily dangerous but it may not comply with the current version of the regulations or for example, may have damaged fittings that do not have exposed live parts.</p> <p>A code C3, in itself, will not warrant an overall unsatisfactory report.</p>		
5.4	Electrical installations within non-domestic premises and common parts of buildings are to be tested on a five year rolling programme.		

6. Emergency lighting testing and inspection

6.1	<p>Policy framework</p> <p>The regulatory requirements governing the fire alarm testing and inspections are:</p>		
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	<ul style="list-style-type: none"> • The Electricity at Work Regulations 1989 (EAWR) imposes duties in respect of systems, electrical equipment and conductors, which includes fixed installations and other equipment such as portable appliances. The Regulations make no specific stipulations on examination and testing, but require all systems to be maintained to prevent "danger" as far as is reasonably practicable. • The Health and Safety at Work Act 1974 (HSW) STATES THAT Employers have a general duty under section 2 of the Health and Safety at Work etc Act 1974 to ensure, so far as is reasonably practicable, the health, safety and welfare of their employees at work. People in control of non-domestic premises have a duty (under section 4 of the Act) towards people who are not their employees but use their premises. The Regulations expand on these duties and are intended to protect the health and safety of everyone in the workplace, and ensure that adequate welfare facilities are provided for people at work. • Under the Regulatory Reform (Fire Safety) Order 2005, article 17 details the Responsible Person duty on maintenance; <i>17.(1) Where necessary in order to safeguard the safety of relevant persons the responsible person must ensure that the premises and any facilities, equipment and devices provided in respect of the premises under this Order are subject to a suitable system of maintenance and are maintained in an efficient state, in efficient working order and in good repair.</i> <p>Emergency lighting falls under this article as its function is to clearly indicate means of escape, provide illumination along such routes to allow safe egress through escape routes and exits provided and to ensure fire alarm points, extinguishers etc. provided can be readily located.</p> <ul style="list-style-type: none"> • BS5266 2011 Emergency escape lighting systems. British Standard BS5266 2011 is the official guidance document in regards to emergency lighting with Part 1, 2005 and Part 8, 2004 dealing with maintenance and servicing. The British Standard is not a legal requirement in itself; however it is a benchmark from where the fire authority and other enforcing authorities work. In order to demonstrate compliance and 'due diligence' alternative testing arrangements could be put in place so long that they are to the same standard or better to the British Standard concerned. 		
6.2	<p>Management</p> <p>All emergency lighting must be tested monthly. This is a short test in accordance with BS 5266 2011. The period of simulated failure should be sufficient for the purpose of this test while minimising damage to the system components e.g. lamps. During this period</p>		

	<p>all luminaires and signs shall be checked to ensure they are present, clean and functioning correctly. A record of test must be recorded in the emergency lighting log book. This test can be carried out by the user/ manager of the building.</p> <p>Annual emergency lighting testing must also be carried out. A test for the full duration of the emergency lights (e.g. 3 hours) must be carried out. The emergency lights must still be working at the end of this test. The results must be recorded in the log book and if any failures detected, these must be remedied as soon as possible. This test must be carried out by a competent person.</p> <p>Details of the programmed testing and certificates issued are to be kept on a shared location on Lambeth's IT systems.</p> <p>Log books will be inspected to ensure that testing is up to date, along with the recording of other events.</p>		
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7. Fire alarm testing and inspection

7.1	<p>The regulatory requirements governing fire alarm testing and inspections are:</p> <ul style="list-style-type: none"> British Standard BS5839-1: 2013 Code of Practice for fire detection and fire alarm system design, installation, commissioning and maintenance. This sets out the requirement for testing and maintaining fire alarm systems. <p>It is vital for regular tests to be carried out to ensure that there has not been a major failure of the entire system or a significant part of the system.</p>		
7.2	<p>Management: weekly user actions</p> <p>When testing a fire detection and fire alarm system there may be a need to isolate ancillary outputs (vibration pads, remote indicator, hush buttons etc.)</p> <p>Every week a manual call point should be operated at normal working hours. It should confirm that the control equipment is capable of processing a fire signal and providing an output to fire alarm sounders and to ensure that the fire alarm signal is correctly received and any alarm centre to which the fire alarm signal is being transmitted.</p> <p>The alarm centre should be contacted immediately before and after the weekly test.</p>		

	<p>The weekly test should be carried out at approximately the same time each week. Occupants should then be instructed that they should report any instance of poor audibility of the fire alarm signal.</p> <p>In premises that some employees only work hours other than that at which the fire alarm or fire detection is normally tested, an additional test should be carried out at least once a month to ensure familiarity of these employees with the fire alarm signals.</p> <p>A different manual call point should be used at the time of every weekly test. So that all manual call points are tested in rotation over a prolonged period. The result of the weekly test and the identity of the manual call points used should be recorded in the system log book.</p> <p>The duration for which any alarm signal is given at the time of the weekly test by the user should not normally exceed one minute, so that in the event of a fire at the time of the weekly test occupants will be warned of the prolonged operation of the fire devices.</p>		
7.3	<p>Management: monthly user actions</p> <p>If an automatic started emergency generator is used as part of the standby power supply, it should be started once each month by simulation of failure of the normal power supply and operated on load at least one hour.</p> <p>If vented batteries are used as a standby power supply, a visual inspection of the batteries and connections should be made to ensure that they are in good condition.</p>		
7.4	<p>Inspection and servicing</p> <p>It is essential that the system is subjected to periodic inspection and servicing so that faults are identified, preventive measures can be taken to ensure the continued reliability of the system, false alarms problems are identified and suitably addressed, and users are made aware of any changes to the building the affect the protection afforded to the system.</p> <p>Periodic inspection and servicing must be carried out by a competent person with specialist knowledge of fire alarm detection and fire alarm systems; including knowledge of the causes of false alarm, sufficient information regarding the system and adequate access to spares.</p>		
7.5	<p>Periodic inspection and test</p> <p>The period between successive inspection and services visits should be based upon a risk assessment, taking into account the type of system installed, the environment in which it operates and</p>		

<p>other factors that may affect the long term operation of the system.</p> <p>The recommended period between successive inspection and services visits should not exceed six months. If this recommendation is not implemented, it should be considered that the system is no longer compliant with this part of BS 5839.</p> <p>The following recommendations are applicable:</p> <ul style="list-style-type: none"> • The system log book should be examined. It should be ensured that any faults recorded have received appropriate attention. • A visual inspection should be made to check whether structural or occupancy changes have affected the compliance of the system with the recommendation of this standard for the siting of manual call points, automatic fire detectors, and fire alarm devices. <p>Particular care should be taken to verify whether:</p> <ul style="list-style-type: none"> • All manual call points remain unobstructed and conspicuous. • Any new exits have been created without the provision of an adjacent manual call point. • Any new or relocated partitions have been erected within 500mm horizontally of any automatic fire detector. • Any storage encroaches 300mm of ceilings, such as to prevent compliance. • A clear space of 500mm is maintained below each automatic fire detector and the ability of the detector to detect has not been impeded by other means. • Any changes to use of occupancy of an area that makes the existing automatic fire detector unsuitable for detection of fire or prone to false alarm, and • Any building alteration or extensions require additional fire detector and fire alarm equipment to be installed. <p>The records of false alarms should be checked. The rate of false alarms during the previous 12 months should be recorded.</p> <p>The battery voltage should be measured with the mains on to check the steady state charge of voltage and check it is within the manufacturer's recommendations.</p> <p>Batteries and their connections should be examined and momentarily load tested with the mains disconnected (other than devices of a radio linked system, to ensure that they are in good serviceable condition.</p>		
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	<p>The fire alarm function of the CIE should be checked by the operation of at least one detector manual call point of each circuit. An entry should be made in the log book to indicate which device was used for the test.</p> <p>The operation of the fire alarm devices should be checked.</p> <p>All ancillary functions of the CIE should be tested.</p> <p>The operation of any facility for automatic transmission of alarm signals to an alarm receiving centre should be checked.</p> <p>All ancillary functions of the CIE should be tested.</p> <p>All fault indicators and their circuits should be checked, where practicable by simulating a fault.</p> <p>Any printers should be tested to ensure that they operate correctly.</p> <p>Radio systems of all types should be serviced in accordance with the manufactures recommendations.</p> <p>On completion of the work any outstanding defects should be reported the premises management. The system log book should be completed and an inspection and servicing certificated should be issued.</p> <p>A shared database across the business is required to hold all fire alarm installation, and testing/maintenance information.</p>		
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8. Domestic detectors

8.1	<p>Statutory framework</p> <p>The regulatory requirements governing fire alarm testing and inspections are:</p> <ul style="list-style-type: none"> • British Standard BS5839-6: 2013 Code of Practice for fire detection and fire alarm system design, installation, commissioning and maintenance. This sets out the requirement for testing and maintaining domestic alarm systems. • Building Regulations Approved Document B 2010 Fire Safety. Approved Document B states, that in most houses the installation of smoke alarms or automatic fire detection and alarm systems, can significantly increase the 		
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	<p>level of safety by automatically giving an early warning of fire.</p> <p>The grades of system for fire alarm systems in dwellings range from Grade A to Grade F. Grade A and B systems are systems of a type described in BS 5839-1. In a Grade C system, the fire detectors are supplied with a common power supply unit with central control equipment and this type of system normally incorporates a secondary rechargeable battery. Fire alarm systems in dwellings are, in most cases, Grade D, E or F which do not employ a control panel.</p> <p>D A system of one or more mains-powered smoke alarms, each with an integral standby supply. The system may, in addition, incorporate one or more mains-powered heat alarms, each with an integral standby supply. One or more batteries or capacitors is provided to ensure protection is available under loss of mains conditions.</p> <p>E A system of one or more mains-powered smoke alarms with no standby supply. The system may, in addition, incorporate one or more heat alarms, with or without standby supplies. The system is potentially more reliable than a Grade F system, because it requires less attention by the user. The cost of the system is higher as a mains supply and interlinking cables are required and the detectors themselves cost slightly more. Loss of mains results in loss of protection.</p> <p>F A system of one or more battery-powered smoke alarms. The system may, in addition, incorporate one or more battery-powered heat alarms. Grade F systems are the simplest form of fire detection and alarm system, are low cost and relatively simple to install. Smoke alarms to BS 5446-1 and heat alarms to BS 5446-2 give a low battery warning. A disadvantage of a Grade F system is that removal of the battery disables the protection.</p> <p>LD Objective of category L systems is the protection of life (D means dwelling).</p> <p>LD1 A system installed throughout the dwelling incorporating detectors in all circulation spaces that form part of the escape routes from the dwelling, and in all rooms and areas in which fire might start, other than toilets, bathrooms and shower rooms.</p> <p>LD2 A system incorporating detectors in all circulation spaces that form part of the escape routes from the dwelling, and in all rooms or areas that present a high fire risk to occupants.</p> <p>LD3 A system incorporating detectors in all circulation spaces that form part of the escape routes from the dwelling.</p>		
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	<p>PD1 A system installed throughout the dwelling incorporating detectors in all areas in which fire might start other than toilets, bath and shower rooms.</p> <p>PD2 A system incorporating detectors only in defined rooms or areas of the dwelling in which the risk of fire to property is judged to warrant their provision</p>		
8.2	<p>Routine testing</p> <p>Instructions to tenants must stress the importance of routine testing. The system should be tested weekly by pushing the test button. If the dwelling has been unoccupied for a period during which the supply could have failed, the occupier should check that the system has not suffered total power failure and is still operable.</p>		
8.3	<p>Maintenance</p> <p>Smoke alarms in Grade D, E and F systems should be cleaned periodically in accordance with the manufacturer's instructions. Where experience shows that undue deposits of dust and dirt are likely to accumulate, so affecting the performance of the system before detectors are cleaned or changed, more frequent cleaning or changing should be carried out.</p>		

9. Lightning protection

9.1	<p>Statutory framework</p> <p>The statutory/ regulatory requirements governing the testing and Inspection of Lightning Protection Conductors is:</p> <ul style="list-style-type: none"> • The Electricity at Work Regulations 1989 state that lightning protection systems should be tested in accordance with the relevant British Standard. • Either BS 6651:1999 or BS EN 62305, depending upon when the system was installed. 		
9.2	<p>Testing and inspection – management</p> <p>The London borough of Lambeth will require lightning protection testing and inspection to be carried out on systems at intervals of twelve months. There are industry standard recommendations that suggest systems are tested at eleven month intervals in order to take account, over time, of all seasonal variations in resistance or other characteristics of the system.</p>		

	<p>Lightning Protection System components tend to lose their effectiveness over the years because of corrosion, weather-related damage, mechanical damage and damage from lightning strikes.</p> <p>The inspection and maintenance programmes will be specified by The London Borough of Lambeth Housing Management Team.</p> <p>It may be necessary to modify the Lightning Protection System if modifications are carried out on the building or its equipment or if the purpose for which the building is utilized is altered.</p> <p>If an inspection shows that repairs and remedial works are necessary, the contractor shall include the details of any repairs and remedial works along with the cost of the repairs and remedial works within the test and inspection report.</p>		
9.3	<p>The contractor shall establish Lightning Protection System maintenance procedures for each particular Lightning Protection System. The procedures become a part of the overall maintenance programme for the structures.</p> <p>The maintenance programme should contain provisions for the following:</p> <ul style="list-style-type: none"> • Verification of all LPS conductors and system components • Verification of the electrical continuity of the Lightning Protection System installation • Measurement of the resistance to earth of the earth-termination system • Verification of Surge Protection Devices • Re-fastening of components and conductors • Verification to ensure the effectiveness of the Lightning Protection System has not been reduced after additions to, or changes in, the structure and its installations. 		
9.4	<p>The contractor shall submit to The London Borough of Lambeth Housing Management complete records of all maintenance procedures along with any corrective actions taken or required. The contractor shall also keep a copy of the above documentation for the contractor's records.</p> <p>Maintenance procedure records should provide a means of evaluating Lightning Protection System components and the Lightning Protection System installation.</p> <p>The Lightning Protection System maintenance record should serve as a basis for reviewing maintenance procedures as well as for updating maintenance programmes. The Lightning Protection System maintenance records should be kept together with the Lightning Protection System design and the Lightning Protection System inspection reports.</p>		

9.5	<p>The Contractor shall submit a comprehensive report on each lightning protection system describing in detail the system, method of testing and the test results obtained.</p> <p>In addition, the works identified from the annual inspection should be categorised by the Contractor in accordance with the system detailed below:</p> <p>Category A = Urgent/dangerous Category B = Requires attention Category C = System functional and complies with standards in force at the time of installation but does not comply with BS 6651/BS62305 Category D = System satisfactory and complies with BS 6651/BS62305</p> <p>The Contractor should then prioritise the works identified on all of the systems having due regard to all of the factors governing the system.</p> <p>The Contractor shall provide a Lightning Conductor Inspection Report Form in accordance with BS EN 62305. This shall be accompanied with a plan drawing of the site detailing the locations of the down conductors and pits and shall be submitted no longer than 5 working days after the test.</p>		
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10. Monitoring and audit

This procedure will be reviewed every year, or as and when there are changes to any legislation and national policy governing this area of work.

Revision	Date	Description of changes	Author
1.0	15 June 2012	Initial Release	
2.0	24 Sept 2016	Total redraft	G. Statham
2.01	10 October 2016	Document reviewed and comments inserted	P. Scott
2.02	21 October 2016	Document modified to included comments	G. Statham
2.03	12 April 2017	Final check	P. Scott
2.04	5 th May	Minor amendments	J Igbokwe
2.05	13 th June	New style	Dr L Boardam
		Review	
		Jan 2018	