



# Risk Management Guidelines

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## Electrical Maintenance – Fixed Installations

### Introduction

This Risk Management Guideline provides information on the actions required to minimise the potential for danger to human life from fires of electrical origin in fixed installations and equipment. Other RSA Group Risk Management Guidelines deal with portable equipment maintenance.

### Maintenance

There is a general duty under the Electricity at Work Regulations 1989 that electrical systems should be maintained, “so far as is reasonably practicable”, in a safe condition. The regulations do not specify how this is to be achieved.

The word “system” includes fixed electrical installations, i.e. the wiring and switchgear installed in the building, and fixed equipment, i.e. equipment that is permanently fixed and can only be moved if fixings are removed, e.g. motors, compressors, heaters, lights etc. Fixed electrical equipment should be tested at the same time as and no less frequently than, the fixed installation.

The duty “so far as is reasonably practicable” requires a person to assess the magnitude of the risk and balance this against the cost, in terms of physical difficulty, time, trouble and expense, of eliminating or minimising the risk. Further comments on “reasonably practicable” are contained in the HSE guidance note HS(R)25 Memorandum of guidance on the Electricity at Work Regulations 1989.

### Frequency of Testing & Records

The Electricity at Work Regulations do not specify how frequently electrical equipment is to be maintained or what records are to be kept. The HSE guidance book HS(R)25 refers to the Institution of Electrical Engineers Regulations for Electrical Installations (known as the IEE Wiring Regulations and now in their 17<sup>th</sup> Edition) which are non statutory regulations , but which are widely accepted in the UK, and compliance with them is likely to achieve compliance with the relevant aspects of the 1989 legislation. The IEE Wiring Regulations have now been adopted as BS 7671:2001 Requirements for Electrical Installations.

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The IEE Wiring Regulations and the supporting publication Guidance note No. 3 on inspection and testing give guidance on the frequency of testing of fixed installations which is reproduced over leaf. These documents together with the On Site Guide to the 17th Edition Wiring Regulations give detailed guidance on the inspection and testing of electrical installations, including the records to be kept.

Inspection and testing is carried out to identify the maintenance requirements of the electrical installation. The work of testing a fixed installation to the 17th edition of the IEE Wiring Regulations must be entrusted to a qualified electrician, e.g. a Joint Industry Board (JIB) graded electrician or equivalent. It is outside the capability of any less skilled person.

The National Inspection Council for Electrical Installation Contracting (NICEIC), the Electrical Contractors Association (ECA) or the ECA of Scotland will suggest suitable contractors. In house electricians, where employed, can undertake testing so long as they are qualified as above.

One suitable contractor capable of carrying out electrical inspections is

RSA Engineering,

17 York Street, Manchester M2 3RS.

Tel: 0845 0740704

## References

The Institution of Electrical Engineers (IEE):

The IEE Wiring Regulations are published jointly with the British Standards Institution as "BS 7671:2001 (IEE Wiring Regulations, 17<sup>th</sup> Edition)" and can be obtained from The IEE, Michael Faraday House, Six Hills Way, Stevenage, Herts SG1 2AY Tel. 01438 313311 ([www.iee.org](http://www.iee.org)).

HSE:

HS(R)25 Memorandum of guidance on the Electricity at Work Regulations 1989 ISBN 07176 1602 9

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## Guidance on Testing of Fixed Installations

Type of installation	Maximum period between inspections and testing as necessary
<b>General:</b>	
Domestic	Change of occupancy / 10yrs
Commercial	Change of occupancy / 5yrs
Educational establishments	5 years
Hospitals	5years
Industrial	3 years
Residential accommodation	5 years
Offices	5 years
Shops	5 years
Laboratories	5 years
Cinemas	3 years
Church installations	5 years
Leisure complexes (excluding swimming pools)	3 years
Places of public entertainment	3 years
Restaurants & hotels	5 years
Theatres	3 years
Public houses	5 years
Village halls/Community centres	5 years

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Agricultural & horticultural	3 years
Caravans	3 years
Caravan parks	1 year
Highway power supplies	6 years
Marinas	1 year
Fish farms	1 year
Swimming pools	1 year
Emergency lighting	3 years
Fire alarms	1 year
Launderettes	1 year
Petrol filling stations	1 year
Construction site installations	3 months



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These and other Risk Management Guidelines addressing a wide variety of risk control issues are freely available from: [www.rsabroker.com/risk-management](http://www.rsabroker.com/risk-management)

**The information set out in this document constitutes a set of general guidelines and should not be construed or relied upon as specialist advice. RSA does not guarantee that all hazards and exposures relating to the subject matter of this document are covered. Therefore RSA accepts no responsibility towards any person relying upon these Risk Management Guidelines nor accepts any liability whatsoever for the accuracy of data supplied by another party or the consequences of reliance upon it.**