

# SHROPSHIRE FIRE AND RESCUE SERVICE

## FIRE SAFETY ADVICE SHEET

### EMERGENCY ESCAPE LIGHTING

#### Introduction

People in your premises must be able to find their way to a place of total safety if there is a fire by using escape routes that have adequate lighting. Where any escape routes are internal and without windows, or your premises are used during periods of darkness, including early darkness on winter days, then some form of backup to the normal escape route lighting (emergency escape lighting) is likely to be required.

The primary purpose of emergency escape lighting is to illuminate escape routes, but it also illuminates other safety equipment. The size and type of your premises and the risk to the occupants will determine the extent of the emergency escape lighting required.

Borrowed lighting may be suitable in small premises where the light is from a dependable source, e.g. street lamps, and adequately illuminates escape routes. Where borrowed lighting is not suitable, then a number of torches, in strategic positions, can be considered. Single 'stand-alone' escape lighting units may be sufficient in small premises and these can sometimes be combined with exit or directional signs, or they may be incorporated within the standard lighting fittings, including decorative versions for premises that require aesthetically pleasing fixtures.



The level of general illumination should not be significantly reduced by the sign.

In larger more complex premises a more comprehensive system of fixed automatic escape lighting is likely to be needed. This will be particularly true in premises with extensive basements or where there are significant numbers of staff or members of the public.

You will have identified the escape routes when carrying out your fire risk assessment and need to ensure that they are all adequately lit. An emergency escape lighting system should normally cover the following:

- each exit door;
- escape routes;
- intersections of corridors;
- outside each final exit and on external escape routes;
- emergency escape signs;
- stairways so that each flight receives adequate light;
- changes in floor level;
- windowless rooms and toilet accommodation exceeding 8m<sup>2</sup>;
- firefighting equipment;
- fire alarm call points;
- equipment that would need to be shut down in an emergency;
- lifts; and
- areas in premises greater than 60m<sup>2</sup>.

It is not necessary to provide individual lights (luminaires) for each item above, but there should be a sufficient overall level of light to allow them to be visible and usable.

The installation of any mains powered emergency escape lighting must be carried out by a competent electrical engineer both for safety and to ensure compliance with an appropriate approved standard. Usually British Standards BS 5266: Part 1:2005 and Part 8:2004 (BS EN 50172:2004) are used (but other alternative European or international standards may be suitable), and certification of the emergency escape lighting to one of these standards must be provided by the installer and/or maintainer.

The Health and Safety (Safety Signs and Signals) Regulations 1996 require any mains powered safety system to be provided with a battery back-up, to ensure it remains available during periods where the normal 240v supply is disrupted, such as a fire involving the electrical wiring or power distribution board.

Emergency escape lighting can be both 'maintained', i.e. on all the time, or 'non-maintained' which only operates when the normal lighting fails. Systems or individual lighting units (luminaires) are designed to operate for durations of between one and three hours. In practice, the three-hour design is the most popular and can help with maintaining limited continued use of the premises during a power failure (other than in an emergency situation).

Emergency escape lighting should operate upon the failure of the local lighting circuit, not just on a general power failure within the premises. This means that if the normal lighting fails in one area e.g. within a staircase, then only the emergency escape lighting in that staircase will operate.

To complement emergency escape lighting, people, especially those unfamiliar with the premises, can be helped to identify exit routes by the use of way-guidance equipment. Way-guidance systems usually comprise photo-luminescent material, lines of LEDs, or strips of miniature incandescent lamps, forming a continuous marked escape route at lower level. These systems have proved particularly effective when people have to escape through smoke, and for partially-sighted people. They can be particularly useful in premises where they can provide marked routes on floors, and in multi-storey premises they can direct people to escape routes which are seldom used, but they must be used in conjunction with the standard overhead emergency escape lighting, not replace it.

### **Maintenance and testing of emergency escape lighting**

All emergency escape lighting systems should be regularly tested and properly maintained to an appropriate standard. Most existing systems will need to be manually tested. However, some modern systems have self-testing facilities that reduce routine checks to a minimum.

Depending on your type of installation you should be able to carry out most of the routine tests yourself. The test method will vary. If you are not sure how to carry out these tests you should contact your supplier or other competent person. Test facilities often take the form of a 'fishtail' key inserted in a special switch either near the main fuse board or adjacent to relevant light switches. Please note that it is bad practice and dangerous to test emergency escape lighting by removing fuses from older style distribution boards.

Typically, testing would include:

- a daily visual check of any central controls;
- a monthly function test by operating the test facility for a period sufficient to ensure that each emergency lamp illuminates; and
- an annual full discharge test.

Particular care needs to be taken following a full discharge test. Batteries typically take 24 hours to re-charge and the premises should not be re-occupied until the emergency lighting system is fully functioning unless alternative arrangements have been made. See BS 5266:Part 8 for more information.

Records of these tests should be kept, as proof of the maintenance of the system and to record any defects, subsequent repairs and routine maintenance.

Further information on emergency escape lighting can be found in British Standard BS 5266 series, the fire safety guides published by HM Government available through our web site at [www.shropshirefire.gov.uk](http://www.shropshirefire.gov.uk) or by telephoning Shropshire Fire and Rescue Service on **01743 260 260**.