BS 6266:2011

BSI Standards Publication

Fire protection for electronic equipment installations – Code of practice

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Publishing and copyright information

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Contents

Summary of pages

This document comprises a front cover, an inside front cover, pages i to iv, pages 1 to 52, an inside back cover and a back cover.

Foreword

Publishing information

This British Standard is published by BSI and came into effect on 31 August 2011. It was prepared by Technical Committee FSH/14, *Fire precautions in buildings*. A list of organizations represented on this committee can be obtained on request to its secretary.

Supersession

This British Standard supersedes BS 6266:2002, which is withdrawn.

Relationship with other publications

This British Standard is complementary to BS 7974, which gives a structured method for determining the most appropriate fire protection strategy for a building as a whole.

Information about this document

This is a full revision of the standard, and introduces the following principal changes:

- reduction from five risk categories to four, of which three are addressed in this edition of the standard;
- reinstatement of detection performance tests;
- update of detection technologies, including the classification of aspirating systems;
- update of structural fire protection provisions, taking account of the publication of BS 9999:2008.

Product certification/inspection/testing. Users of this British Standard are advised to consider the desirability of third-party certification/inspection/testing of products and systems installed to achieve conformity with this British Standard. Appropriate conformity attestation arrangements are described in the relevant product standards. Users seeking assistance in identifying appropriate conformity assessment bodies or schemes may ask BSI to forward their enquiries to the relevant association.

Hazard warnings

WARNING. This British Standard calls for the use of substances and/or procedures that can be injurious to health if adequate precautions are not taken. It refers only to technical suitability and does not absolve the user from legal obligations relating to health and safety at any stage.

WARNING. The tests described in this standard give off noxious fumes, and suitable precautions should be taken to protect operators in accordance with appropriate risk assessments.

WARNING. There is a fire hazard associated with these tests and an appropriate type of fire extinguisher should always be to hand when preparing for and undertaking the tests.

WARNING. It is the responsibility of the person carrying out the tests that electrical safety is maintained at all times. The electrical tests described within this standard are functional methods and do not attempt to cover the requirements for electrical safety.

Use of this document

This British Standard is intended for use by persons involved in the specification, design, installation, commissioning and operation of fire protection systems for areas containing electronic equipment.

As a code of practice, this British Standard takes the form of guidance and recommendations. It should not be quoted as if it were a specification and particular care should be taken to ensure that claims of compliance are not misleading.

Any user claiming compliance with this British Standard is expected to be able to justify any course of action that deviates from its recommendations.

BSI permits the reproduction of BS 6266:2011, Table I.1. This reproduction is only permitted where it is necessary for the user to record calculations on the table during each application of the standard.

Presentational conventions

The provisions of this standard are presented in roman (i.e. upright) type. Its recommendations are expressed in sentences in which the principal auxiliary verb is "should".

Commentary, explanation and general informative material is presented in smaller italic type, and does not constitute a normative element.

Contractual and legal considerations

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with a British Standard cannot confer immunity from legal obligations.

Introduction

A fire in an electronic equipment installation can lead to extensive physical damage to the electronic equipment and serious interruption of operations and services. The occurrence of a fire in an electronic installation, however, is a rare event, and is more often determined by the presence of sources of ignition or fire hazards other than the electronic equipment itself, such as:

a) supporting electrical equipment and installations, e.g. power supplies;

b) control equipment and switchgear;

c) air-handling equipment;

d) hot works/maintenance;

e) deliberate ignition;

f) poor housekeeping;

g) fire from adjacent areas or premises;

h) availability of combustible materials.

If a fire does occur, its effects can be minimized by appropriate structural fire protection measures, early detection and extinguishing of the fire, either of which might occur automatically (by fixed systems) or manually (by persons on the premises). This British Standard gives guidance on these measures, taking into consideration the characteristics of those environments in which electronic equipment installations are located. The extensive use of fire protection systems in electronic installations arises not from a high probability of fire, nor from a significant hazard to life, but from the consequences of fire loss.

In practice, a wide variation of dependence on electronic equipment is found. At one extreme, a processing operation might be duplicated at a second location, so that there is redundancy. In this case, a fire at either location would not be expected to cause significant interruption to the operation. The fire protection strategy for electronic equipment fires could then be related entirely to the physical damage to the equipment and its surroundings and the associated financial cost.

At the other extreme, a "real-time" facility might be critical to the revenue-earning capacity of an organization, e.g. it might control a major manufacturing process or provide financial dealing information. In such circumstances, even a few minutes' downtime can result in significant interruption to users. It might be impractical to provide facilities for the restoration of the service at another location in a short time, in which case a sophisticated fire protection system will be necessary.

It is often necessary to consider the potential for business interruption separately from the potential for material damage. It is essential that the level of protection is reviewed periodically to ensure that it remains appropriate to the exposure to loss.