

Part I - GENERAL PROVISIONS

1. Use of the Code

- 1.1 Authorised persons, registered structural engineers and any person responsible for the design of buildings may find this Code useful in establishing the requirements of the Building Authority for fire resisting construction.
- 1.2 This Code gives guidance on how the Building Authority's requirements may be complied with.

2. Objectives

- 2.1 The objective of this Code is to announce provisions for the protection of buildings from the effects of fire by inhibiting the spread of fire and ensuring the integrity of the structural elements of buildings.
- 2.2 There are other fire-safety objectives : preventing the outbreak of fire, abating fire hazards, fire suppression, preventing loss of property, providing means of escape and assisting in firefighting and rescue. Provisions for some of these can be found in the Buildings Ordinance and other Codes of Practice issued by the Building Authority.

3. Two Approaches to Fire Safety

- 3.1 Prescriptive Provisions : Compliance with the prescriptive provision in this Code may be regarded as a reliable way to satisfy the Building Authority's requirements. Departure from these provisions will necessitate an alternative approach to be adopted and proved, in individual cases, to the satisfaction of the Building Authority as to compliance with requirements.
- 3.2 Alternative Approach : The Building Authority recognizes that fire safety may be approached in a number of ways the best of which is not necessarily prescriptive. This is particularly pertinent to buildings of special hazards which, because of their size, height, use, design, construction or location, may necessitate special consideration and specific standards. In this Code, the points to note for an alternative approach are set out.

3.3 For the assessment of the need of a building for fire protection, the Building Authority accepts the following as relevant factors :

- the anticipated risk of a fire occurring in the building;
- the anticipated severity of a fire;
- the ability of the structure of the building to resist the effect of fire and to minimize the spread of fire and smoke; and
- the consequential and possible danger to the people in and around the building.

3.4 Where an alternative approach is adopted, the Building Authority will assess its acceptability by reference to a set of criteria. This includes the means of escape, the means of access, the fire service installations, the fire resisting construction, the size, the height, the use, the location and the management of the building. An acceptable alternative approach should take into consideration these criteria and at the same time, applies scientific and engineering principles to the protection of people and property from fire. Such an approach, which is also called "a fire engineering approach", may be the only viable means to a satisfactory standard of fire safety in some large and complex buildings.

3.5 A variety of measures may be taken to achieve fire safety in a building. These measures may provide for or enhance the following :

- the means to prevent fire;
- early fire warning by an automatic detection and warning system;
- the standard of the provision of means of escape;
- the facilities for smoke control;

- the control of the rate of spread of fire;
- the resistance of the effects of a fire;
- the capacity for fire containment;
- fire separation between buildings or parts of buildings;
- the standard of active measures for fire extinguishment or control;
- the facilities to assist in fire-fighting and rescue;
- the effectiveness of property management to minimize the outbreak of fire;
- the availability of personnel trained in fire protection; and
- the availability of any arrangement that could ensure the continued maintenance of fire protection systems.

3.6 Quantitative techniques may be used to evaluate risks and hazards. Some factors listed above may be given numerical values in certain circumstances. When quantitative methods are used, any assumptions made should be substantiated, where possible, by documents from competent authorities.

4. Interpretation

"balcony approach" means a balcony which is used as an external approach to a common staircase and which serves two or more occupancies.

"basement" of a building means any storey which is below the lower or lowest ground storey and from which all required exit routes are in an upward direction.

"compartment" means a portion of a building which is separated from adjoining portions by walls and floors of the required standard of fire resistance assessed as a unit for the purpose of Table 2 herein.

"compartment volume" means the volume of the portion of a building contained within the external surfaces of the walls and floors forming a compartment.

"element of construction" means :

- (a) any floor, beam, column or hanger;
- (b) any load-bearing wall or load-bearing member other than a member forming the roof or part of the roof;
- (c) any required staircase including the landings and supports thereto.

"fire resistance period" or **"FRP"** means the period of time for which any element of construction, wall, fixed light, door, fire shutter or other component of a building is capable of resisting the action of fire when tested in accordance with **BS 476** : Parts 20 to 24 : 1987 or as specified in tables A to F in this Code.

"ground storey" of a building means the storey in which is situated an entrance from a street to the building and, where a building fronts or abuts on more than one street and due to a difference in street levels there are two or more entrances from different streets and situated in different storeys, means each such storey.

"industrial undertaking" is as defined in the Factories and Industrial Undertakings Ordinance.

"place of public entertainment" is as defined in the Places of Public Entertainment Ordinance.

"refuge floor" of a building means a protected floor that serves as a place of temporary refuge for the occupants of the building in case of fire.

"required staircase" means an access staircase in a firefighting and rescue stairway or a staircase required for means of escape in case of fire.