Buildings Department

Practice Note for Authorized Persons and Registered Structural Engineers 169

Natural Lighting to Staircases Building (Planning) Regulation 40

Building (Planning) Regulation (B(P)R) 40 stipulates, inter alia, that a staircase in any building intended for common use by more than two tenants shall be provided with adequate natural lighting.

2. The adequacy of natural lighting for staircases depends on a number of factors including the size, number and location of windows, type of glass and design of the staircase. The following guidelines aim to assist in the design of staircases as satisfying the natural lighting requirement under B(P)R 40 :

- a. Clear glass should be used;
- b. The staircase window(s) for each storey should have an aggregate glass area of not less than one-tenth of the plan area within the staircase enclosure;
- c. For buildings not exceeding 12 storeys, staircase windows should face into an uncovered space complying with the "open air" requirement as defined under B(P)R 2(1);
- d. For buildings exceeding 12 storeys, staircase windows should face into an uncovered and unenclosed space with a base width of not less than 2.3m and a length at right angles to the base of not less than 4.5m (the full width of any adjoining service lane can be included); and
- e. Scissor staircases should be designed to ensure adequate and even distribution of natural lighting to each flight. The following arrangements would be acceptable but alternatives would be considered:
 - i. windows in the end wall of a landing being centrally positioned and having a minimum width of 1.3m; and
 - ii. windows in the side wall of a landing or of any flight having a minimum width of 650mm, not less than two windows being provided for each storey and the separating wall between flights being reduced to ensure that the back flight has adequate light.

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3. It is accepted that adequate artificial lighting with a backup emergency system is a viable alternative option for replacement of natural lighting. To allow greater flexibility in design without compromising safety, the Building Authority is prepared to waive the requirement for the provision of natural lighting under B(P)R 40 if he is satisfied with the following:

- (i) The staircase is provided with permanent artificial lighting having 30 lux minimum lighting level at floor level;
- (ii) The artificial lighting is backed up by an automatically activated emergency lighting system. Such emergency lighting system complies with the requirements set out in the Code of Practice for Minimum Fire Service Installations and Equipment and would provide a horizontal illuminance at floor level of not less than 2 lux in event of emergency; and
- (iii) Proper management is in place to ensure that the artificial lighting and backup emergency systems are well maintained and in effective working order.

4. For the purpose of paragraph 3(iii), the BA would normally accept that a building would have proper management if the maintenance of the artificial lighting and backup emergency system is to be managed by a management company upon the occupation of the building, and that the requirement for the regular maintenance of the system is incorporated in the Deed of Mutual Covenant of the building.

(Marco M H WU) **Building Authority**

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