

Date: 10/02/98

Ref: 45/1/161

Note: The following letter was issued by our former department, the Department for Environment, Transport and the Regions (DETR). DETR is now Communities and Local Government - all references in the text to DETR now refer to Communities and Local Government.

**Building Act 1984 - Section 16 (10)(a)
Determination of compliance with Requirement B1 (Means of escape) of
the Building Regulations 1991 (as amended) in respect of need for fire
resisting screens to single stair**

3. In making the following determination, the Secretary of State has not considered whether the plans conform to any other relevant requirements.

The proposed work

4. The building work comprises the erection of your clients new HQ office block which is to be associated with a new heat treatment factory. The office comprises a ground and first floor with two perpendicular wings joined at right angles. At the juncture of the wings there is a single central staircase, at the base of which is a reception area. Each of the wings is approximately 20 metres in length by 10 metres in width.

5. The ground floor plan shows seven numbered offices, two other large offices, an archives room, a computer room, a conference room, a plant room, a tea making room, and toilet facilities. Access to each office is via a central circulation corridor in each wing leading to the juncture of the wings and the central single staircase. A hour fire resisting glazed screen with doors is shown on the plan separating these corridors and circulation areas from the stairwell containing the single stairs, a lift, and a reception area.

6. The first floor plan shows 11 numbered offices in addition to a boardroom, a tea making room and toilet facilities. As with the ground floor, access to each office is via a central circulation corridor in each wing leading to the single stair. Access to the stairwell is, again, shown as being through doors in a fire resisting glazed screen.

7. The conference room/boardroom, tea making room, and toilet facilities on both floors open into the circulation area between the wings, opposite the fire resisting screens.

8. The building is equipped throughout with a fire detection and alarm system, including smoke and heat detectors in all areas. All accommodation areas are separated from escape routes by a minimum 30 minutes fire resisting construction. All doors leading onto escape routes will be provided with smoke seals and self closing devices. Cloakrooms and storage areas will be provided with the same level of protection. The reception area is to be designated as a sterile space containing no significant quantities of combustible materials.

9. These proposals were the subject of a full plans application which was rejected by the Borough Council on grounds of non-compliance with Requirement B1 (Means of escape). The Borough Council considered that even with fire resistant screens travel distances would be in excess of that recommended in *Approved Document B (Fire safety)* and that the omission of fire resisting screens would further increase the travel distances. However, you believe that your proposed fire safety provisions would be in compliance without the screens being in place and it is in respect of this question that you have applied for this determination.

The applicant's case

10. You state that your client has specifically requested that the screens forming the circulation route, and separating the stairway, on both floors should not be provided. You refer to the report submitted by your fire consultant and make the following points in support of your submission:

i) you accept that the recommended travel distances given in *Approved Document B* will be exceeded but additional safety features are provided such as the early warning system which you consider will increase evacuation times. The alarm system is understood to comply with BS 5839: Part 1: 1988 (L1 standard)

ii) cross circulation between the wings will not occur in fire because this is an office building and evacuation would be the major priority

iii) various discussions have taken place regarding refuge areas for disabled persons and if the screens were not installed then a suitable disabled refuge will be provided

iv) the reception area is to be kept as a sterile space with reception desks and seating being constructed of materials of limited combustibility, e.g. hardwood or stone, with small amounts of padding. Management control procedures will prevent significant quantities of combustibles being placed in this area

v) you consider that the provision of a screen across the stair/reception area would not be of any benefit and may even complicate the exit route and hinder escape.

The Borough Council's case

11. The Borough Council, after consultation with the Fire Authority, have rejected the proposals on the basis that they are not acceptable and do not show compliance with Requirement B1. They make the following points in support of their decision:

i) provided the fire resisting screens are in place to separate the cross circulation route from the stairway at both ground and first floor levels, then the travel distance to a storey exit is estimated at 25.5m. Without the screens in place, the maximum travel distance increases to 32m

ii) omission of the fire resisting screens which separate the ground and first floor central corridors from the staircase would mean that circulation between the wings of the building would be via the protected stair enclosure. This is contrary to the guidance given in *paragraph 3.12 of Approved Document B*

iii) the guidance given in *paragraph 4.31c of Approved Document B* limits the use of reception areas within protected stair enclosures but with the proviso that it is not the only stair serving the building. In this case there is only a single stair available for escape

iv) omission of the screens would increase the risk to disabled persons using the staircase enclosure as a refuge area whilst waiting for assistance with evacuation.

The Department's view

12. In the Department's view there are two main issues to consider:

i) whether it would be permissible in terms of safe means of escape to remove the screens which provide fire separation to the cross circulation route between the wings of the building at ground and first floor levels; and

ii) whether it is acceptable to provide a reception area in the single stair enclosure at ground floor level.

i) Removal of screens on both floors

13. The Department accepts that a full alarm and detection system is to be incorporated but notes that this case relates to quite a large two storey office building comprising two wings on each floor, and with each wing containing a number of offices or other rooms. All these facilities are served by a single centrally located stair. The Department also notes that even with the protecting screens in place then travel distances exceed the recommended maximum given in Approved Document B and that the travel distance situation is made worse if the screens are removed.

14. The Department agrees with the Borough Council's view that if the protecting screens are removed then the circulation route from one wing to the other would be via the stair enclosure which is contrary to the recommendations given in Approved Document B. The Department also considers this to be unacceptable in terms of the size of the building and its occupancy. In addition the Department shares the Borough Council's concern regarding the lack of a safe refuge facility for disabled persons on the first floor if the screens are removed; and is also concerned that with the screens removed the tea making rooms, toilets, and the conference and boardrooms between the wings of the building would open direct into the stair enclosure. The Department therefore considers that the removal of the screens separating the circulation routes on the ground and first floors from the stair enclosure could prejudice safe escape.

ii) Reception area in stair enclosure

15. The Department accepts that the guidance given in Approved Document B does not recommend acceptance of a reception area where there is a single stair situation. However, in this case the Department considers that it is reasonable to take account of the proposed early warning system and the management undertaking that this will be a sterile area. Nevertheless, acceptance of the reception area in this location must rely on there being fire separation between the reception area and the circulation route, and is therefore dependent on the protecting screens being in place.

The determination

16. Your revised proposals to comply with Requirement B1 of Schedule 1 to the Building Regulations 1991 involve the omission of any form of fire separation between the circulation routes and the single stair on both floors, and the retention of a reception area in the single stair enclosure at ground level.

17. The Secretary of State has given careful consideration to the facts and the particular circumstances of this case. He has concluded, and hereby determines, that your proposals do not comply with Requirement B1.