Freedom of Information request reference number: 8885.1

Date of response: 26/07/2024

Request:
Please could you confirm if FSGN 506 (Smoke Outlets) is still in effect and the most up to date version. Please could I have a copy if a newer revision has been issued?

Response:

Further to your request, I can confirm the FSGN 506 (Smoke Outlets) is still in effect. A copy of the current revised guidance can be found below.

We have dealt with your request under the Freedom of Information Act 2000. For more information about this process please see the guidance we publish about making a request on our website: https://www.london-fire.gov.uk/about-us/transparency/request-information-from-us/

LONDON FIRE BRIGADE

Fire Safety Information & Guidance Note

FSR Ref:

FSIGN 506

Smoke Outlets

Old Inst.: *FSR:I030:a4*
Issue date: *Jun 2004*
500 Series: *Fire Engineering & Fire Safety Systems*

Summary

The London Fire Commissioner (the Commissioner) is the fire and rescue authority for London. The Commissioner is responsible for enforcing the Regulatory Reform (Fire Safety) Order 2005 (as amended) in London.

This Note is intended for internal use, providing information and guidance on smoke outlets.

This Note is one of a series produced by Fire Safety Regulation HQ Policy Groups to provide additional advice and guidance to officers and Fire Safety Teams on various subjects related to their role.

Where appropriate this Note should be used for learning and staff development purposes.

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LONDON FIRE BRIGADE

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1.1Introduction

1.2 Fires in basements can pose particular hazards to fire-fighters. Products of combustion will tend to rise via stairways and this can make access by fire-fighters difficult. If no means of removing smoke and heat is provided there can be significant heat build up within the basement which can result in extremely hazardous conditions for fire-fighters.

1.3 In general terms, all basements (other than small basements) should be provided with means of venting smoke and heat, to improve visibility, reduce temperatures, and make search, rescue and firefighting more tolerable.

1.4 This document sets out the statutory requirements and the brigade's recommendations for smoke outlets in basements areas.

1.5Statutory requirement

1.6 It is the Building Control Authority's practice to recommend ventilation from each basement storey (regardless of size/depth) of buildings subject to control under Section 20 of the London Building Acts (Amendment) Act 1939.

1.7 It is the Building Control Authority's practice to recommend ventilation from basement storeys that are greater than 200m^2 and which are greater than 3m in depth (measured from the adjacent ground level) in accordance with Building Regulations 2000 (Approved Document B volume 2).

1.8 Ventilation can be either mechanical or natural and one method of natural ventilation is the use of smoke outlets.

1.9Siting

1.10 Smoke outlets from basements and smoke outlet shafts from sub-basements should be arranged in well-distributed positions along street frontages or adjacent to external walls and should be easily accessible to the Fire Brigade. Smoke outlets should be as numerous and as large as possible and arranged so that through-draughts are created. The combined cross sectional area of all smoke outlets should be not less than 2.5% of the floor area of the storey they serve. Separate outlets should also be provided from areas of special risk, (e.g., transformer chambers, boiler rooms) where a vent area equivalent to 5% of the floor area is required under the London Building Acts (Amendment) Act 1939.

1.11 Where practicable each basement space should have one or more smoke outlets, but it is not always possible to do this where, for example, the basement is deep and the amount of external wall is restricted due to adjoining buildings. It is permissible in these cases to vent rooms on the perimeter and allow other spaces to be vented indirectly by opening connecting doors. This solution is not permissible however, between different compartments.

1.12 Fire resistance

1.13 Smoke outlet shafts from sub-basements and any bulkheads over such shafts should be enclosed with imperforate walls having a standard of fire resistance at least equal to that of the floor over the storey or part of the storey from which the smoke outlet originates, so as to maintain the same standard of fire separation between storeys. Where shafts from different parts of the sub-basement adjoin they should be separated from each other by imperforate construction of a similar standard of fire resistance.

1.14 Load bearing

1.15 Covers of smoke outlets normally take the form of stallboard or pavement lights consisting of glass lenses set in a reinforced concrete framework of a type easily broken by fire-fighters.

1.16 The standard pavement light capable of taking a load of 20Kn/m² should be used in the majority of instances. Where there is a possibility of vehicular traffic passing over the pavement light a heavy-duty light should be installed capable of withstanding a concentrated load of 75Kn/m².

1.17 Marking

1.18 The position of each smoke outlet should be suitably indicated on the external wall of the building, adjacent to the outlet by a metal plate 100mm x 75mm marked "SMOKE OUTLET FROM BASEMENT" or "SMOKE OUTLET FROM SUB-BASEMENT".

1.19 Smoke outlets from basement and sub-basement lobbies should be indicated by means of a metal plate at least 3.24cm² in area marked "SMOKE OUTLET FROM BASEMENT LOBBY" or "SMOKE OUTLET FROM SUB-BASEMENT LOBBY" and affixed to the external wall of the building adjacent to the outlets.

1.20 Non-standard covers to smoke outlets

1.21 Before approval is given to any new type of smoke outlet tests are to be witnessed by Fire Safety Officers in order to ascertain that they can easily be broken.

1.22 Some pavement lights have been especially designed so that the surface finish matches the surrounding area. This type of panel is indicated by the prefix S.G. (Solid Grid). As the finish cannot be approved, the installer should seek the approval of the Building Control Authority, and inform the Brigade who will need to witness a physical test on any panel of this type.

1.23 The test referred to above consists of the outlet panel, together with the desired modification, being constructed as realistically as possible, preferably on site, so that a Fire Safety Officer can witness it being broken with blows from a 6kg hammer (carried on Brigade appliances).

1.24 The modification should not affect, to any degree, the destruction of the actual outlet panel nor the total free area available for ventilation. As a guide, for light or medium duty outlets after about 6 blows of the hammer (the operator should be of average build) a hole should have been made through which venting can take place. For heavy-duty outlets, about 10 blows should be required. Subsequent blows should cause the destruction of the outlet panel. The purpose of the test, is to prove the effort required to destroy the vent panel and modified finish, is reasonable. If the test proves satisfactory, the panel and finish should be installed to the same specification as that tested. If the test fails the developer is to redesign and submit for re-test.

For further information or advice, please contact the Fire Engineering Group on Ext 89100.

(For reference the corresponding operational policy is number 4 (formerly ON192)).

Document History

Impact assessments

An Equality or Sustainability Impact Assessment was completed on:

Equality Impact Assessment	xx/mm/yyyy	Sustainability Impact Assessment	xx/mm/yyyy

Audit trail

Listed below is a brief audit trail, detailing amendments made to this policy/procedure.

Page/para nos.	Brief description of change	Date
Throughout	General updating throughout	11/02/2011
1	Introduction updated	11/02/2011
2	Statutory requirements updated	11/02/2011
3.2	New paragraph	11/02/2011
All	FSIGN Format	28/02/2012
All	Updated to reflect change to Corporate Identity	01/04/2018
Summary	Updated to recognise the RR(FS)O has been amended	01/05/2022