



FIRE SERVICES DEPARTMENT

FIRE SAFETY STANDARDS

FOR

GENERAL RESTAURANTS WITH LOW FIRE POTENTIAL

(Explanatory Notes)

Introduction

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1. This document consists of three parts :
 - 1.1 These explanatory notes, Form PPA/101(I)-1, containing information relevant to the safe operation of general restaurants with low fire potential;
 - 1.2 The standard requirements, Form PPA/101(I)-2, to be complied with prior to the issue of Fire Services Certificate required for the licensing of food premises under Section 33B of the Food Business Regulation (Cap. 132 sub. leg.); and
 - 1.3 Fire precautions, Form PPA/101(I)-3, that should be observed for the safe operation of food business after issue of licence.
 2. For food businesses already licensed, the licensees are advised to upgrade the fire protection to the standard as stipulated in this document at the earliest opportunity.
 3. For other types of food business classified according to the risks they impose, please refer to :
 - 3.1 PPA/101(A) - Food businesses in small houses;
 - 3.2 PPA/101(B) - Bakeries and food factories for manufacture only;

- 3.3 PPA/101(C) - Bakeries and food factories for manufacture and sale on premises;
- 3.4 PPA/101(D) - General (fast food) restaurants;
- 3.5 PPA/101(E) - Factory canteens with low fire potential;
- 3.6 PPA/101(F) - Light refreshment restaurants with low fire potential;
- 3.7 PPA/101(G) - Light refreshment restaurants with high fire potential;
- 3.8 PPA/101(H) - Barbecue/hot pot restaurants with low fire potential;
- 3.9 PPA/101(J) - Factory canteens with high fire potential, Barbecue/hot pot restaurants with high fire potential, and General restaurants with high fire potential.

Application

- 4. The contents of this document apply to general restaurants modestly decorated to pose a low fire potential which means either :
 - 4.1 The premises do not exceed 126 m² in area; or
 - 4.2 The premises, although over 126 m² in area, meet ALL the following conditions :
 - 4.2.1 The average quantity of combustible materials in the premises does not exceed 60 kg/m², and
 - 4.2.2 The area partitioned by combustibles does not exceed 30% of the total area occupied, and
 - 4.2.3 No more than 50% of the total area of designed openable/breakable windows or 25% of these on the upper part, are obstructed by decoration or sealed up.

5. Food premises over 126 m² in area but do not meet ALL the conditions as described in paragraph 4.2 are deemed as general restaurants with high fire potential in respect of which the contents of Form PPA/101(J) shall apply.

Restrictions

6. This type of general restaurant shall not be located :
 - 6.1 In any buildings/structures which are of sub-standard construction;
 - 6.2 On level 4 of basement or below, if electricity, town gas or liquid fuels are to be used;
 - 6.3 On any floor below ground level, if liquefied petroleum gas is to be used;
 - 6.4 In area designed for emergency use, such as the buffer floor (also referred to as the refuge floor);
 - 6.5 In area designed for other use, such as car parks; or
 - 6.6 In any industrial buildings.

Fire Services Requirements

7. The Fire Services requirements as detailed in Form PPA/101(I)-2 are formulated for three purposes :
 - 7.1 To reduce the probability of fire;
 - 7.2 To mitigate the effect of fire; and
 - 7.3 To limit the spread of fire.
8. These requirements do not include those stipulated by the Building Authority, as the controlling authority on :
 - 8.1 Means of escape although whatever required under the Building Ordinance may be, after issue of licence, enforced by the Fire Services under Section 9B of the Fire Services Ordinance.

8.2 Building construction such as compartmentation and fire resistance of building elements. For buildings of sub-standard construction or where there have been serious alterations to affect the fire safety, the Director of Fire Services may refuse to issue Fire Services Certificate in accordance with Section 33B of the Food Business Regulation (Cap. 132 sub. leg.).

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(Standard Requirements)

Premises

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1. If the food business is to be located:
 - 1.1 In a domestic building, the premises shall be completely separated from the domestic units on the upper floors to the standard as stipulated by the Building Authority. As a general guideline, this shall be effected by brick walls of not less than 100 mm thick or equivalent to give a fire resisting period (FRP) of one hour; and any door opening giving onto the common area shall be protected by self-closing doors to give a FRP of half an hour.
 - 1.2 On the upper floors of a commercial building, the premises shall be completely separated from other units on the same floor to the standard as stipulated by the Building Authority. As a general guideline, this shall be effected by brick walls of not less than 100 mm thick or equivalent to give a fire resisting period (FRP) of one hour; and any door opening giving onto the common area shall be protected by self-closing doors to give a FRP of half an hour.

- 1.3 In shopping arcade of a commercial building, the part of the premises used for seating accommodation or service counter need not be separated from other units provided the entire shopping arcade is protected by sprinkler system.
2. All combustible materials, if used as false ceilings, shall be treated with two coatings of flame retardant paints on all exposed parts and certified by a Class II Fire Service Installation (FSI) Contractor.
3. All combustible wall furnishings, if installed and do not exceed the total maximum quantity of 60 kg/m², shall be treated with two coatings of fire retardant paints/solutions on all exposed parts and certified by a Class II Fire Service Installation (FSI) Contractor.
4. If an area not exceeding 30% of the seating accommodation is partitioned by combustible materials, these shall be treated with two coatings of fire retardant paints on all exposed parts and certified by a Class II FSI Contractor.
5. All draperies and curtains, if installed, shall be:
 - 5.1 Treated with flame retardant solution and certified by a Class II FSI Contractor; or
 - 5.2 Made of materials containing fire resistant fibres and acceptable to the Director of Fire Services.

Windows

6. The windows of the food premises shall not in any way be obstructed by any decoration or sealed up for more than 50% of the designed openable/breakable window areas totally, nor 25% of these areas located on the upper part, unless a dedicated smoke extraction system is provided.

Kitchen

7. The kitchen shall be separated from the remaining part of the premises to the standard as stipulated by the Building Authority.
8. The food serving opening between the kitchen and the seating accommodation shall not exceed 0.2 m² in area and shall be protected by 44 mm hardwood or equivalent drop hatch.

Exit Signs

9. Unless the exits are already provided with signs in accordance with extant legislation, these shall be indicated by illuminated signs bearing the word and characters “EXIT 出口” in block letters and characters of not less than 125 mm high with 15 mm strokes. The colour of the letters/characters and contrasting colour on the background shall comply with any one of the following:

<u>Letter Colour</u>	<u>Background Colour</u>
Green	White
White	Green

Directional Signs

10. If the exit signs are out of sight to any location within the premises, suitable directional signs in same dimensions as the exit signs shall be provided to assist the occupant to identify the exits in the event of an emergency.

Fuel

11. The requirements for the use of fuels in the kitchen are stipulated in Form PPA/102.

Fire Service Installation and Equipment

- 12. All fire service installation (FSI) and equipment provided for the building shall be retained and maintained in efficient working order. Where alterations and additions are required, such work shall be carried out by a registered FSI Contractor and a certificate issued to the owner with copy forwarded to the Director of Fire Services within 14 days.

- 13. Unless already installed as part of the building's fire protection, a manual fire alarm system shall be provided for the premises with one operating switch at each of the following locations:
 - 13.1 Outside the kitchen;
 - 13.2 Near each exit; and
 - 13.3 At the cashier's counter.

- 14. Unless already installed as part of the building's fire protection, a sprinkler system shall be required in basement premises occupying an area exceeding 126 m².

- 15. Unless already installed as part of the building's fire protection, a sprinkler system shall be required in premises occupying an area exceeding 230 m².

Portable Fire Fighting Equipment

- 16. Portable fire fighting equipment of the approved type, over and above those installed for the occupation of the building, shall be provided at the following scales:
 - 16.1 One x 9L CO₂/Water extinguisher (FE) for every 100 m² of seating accommodation;

$$\frac{\text{Area of Seating Accommodation in m}^2}{100 \text{ m}^2} = \text{CO}_2/\text{Water FE}$$

16.2 One x not less than 4.5 kg CO₂ fire extinguisher (FE) for every 3 burners in the kitchen;

$$\frac{\text{Number of Burners}}{3} = \text{CO}_2 \text{ FE}$$

16.3 One x 1.44 m² fire blanket for every 3 frying pans/woks using oils/fat for deep frying;

$$\frac{\text{Number of Frying Pans/Woks}}{3} = \text{Fire Blanket}$$

Secondary Lighting

17. Emergency lighting shall be provided to the premises and the attached requirements for Self-contained Luminaries Emergency Lighting System (PPA/104(A)) shall be complied with.

PU Foam

18. Any PU foam filled mattresses and upholstered furniture in the premises shall meet the following flammability standards:

Mattresses

British Standard : Specification for resistance to ignition of mattresses, divans and bed bases (for the use in medium hazard premises/building) BS 7177 : 1996 or a standard acceptable by the Director of Fire Services.

Upholstered furniture

British Standard : Specification for resistance to ignition for non-domestic seating by testing composites (for the use in medium hazard premises/building) BS 7176 : 1995 or a standard acceptable by the Director of Fire Services.

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(Fire Precautions)

Means of Escape

1. The following are deemed by the Director of Fire Services as means of escape within the meaning of Section 9D of the Fire Services Ordinance:

1.1 In the case of ground floor shops:

1.1.1 the entire width of the shop front;

1.1.2 all exits giving onto the open area; and

1.1.3 a clear passage leading from the shop front to the opposite end of the premises.

1.2 In the case of upper floors in commercial buildings:

1.2.1 all exits/doors giving onto any corridor leading to the open, or directly giving onto the open;

1.2.2 all parts of common area leading from designed exits/doors to a place of safety in open air either on the podium, the roof, the buffer floor or the street level; and

1.2.3 passages of 1 metre wide linking the exits to the opposite end within the premises or other exits to form clear routes for circulation and evacuation.

- 1.3 In the case of shopping arcade in commercial building:
 - 1.3.1 all exits/doors giving onto any corridor leading to the open, or directly giving onto the open;
 - 1.3.2 all parts of common area leading from designed exits/doors to a place of safety in open air either on the podium or the street level; and
 - 1.3.3 passages of 1 metre wide linking the exits to the opposite end within the premises or other exits to form clear routes for circulation and evacuation.
2. All means of escape should be kept free from obstruction. In particular:
 - 2.1 No matter or thing may be left in the areas as defined at para. 1 above at any time (if in a domestic building)/at all times when persons are present in the building (in a commercial building); and
 - 2.2 All exits/doors should be kept openable from the inside without the use of a key and all metal gates and shutters, where installed, should be kept in the open position at any time when members of the public are present in the premises.
3. Failure to observe these precautions may result in the operator or the responsible person being prosecuted under Section 9B of the Fire Services Ordinance without prior warning.

Premises

4. The number of persons permitted in the sale area at any time should not exceed the limit approved by the Building Authority. As a general guideline, an area of 0.5 square metre should be allowed for each person and reduction of this standard to less than 50% may be considered as overcrowding to constitute a fire hazard.

5. All cigarette ends should be completely extinguished before disposal, particularly when they are likely to come into contact with combustibles such as table cloth awaiting collection for cleaning.
6. Food packaging made of expanded polystyrene foam should be stored in cupboards to avoid coming into contact with excessive heat and naked flame.
7. Failure to observe the precautions as described in para. 4 to 6 may result in the operator being served with a Fire Hazard Abatement Notice and failure to comply with the notice may lead to prosecution under Section 9 of the Fire Services Ordinance.

Kitchen

8. All walls, stoves and exhaust ducts should be cleaned regularly to remove the oils and grease accumulated as a precaution against fire.
9. The observance of this precaution is the responsibility of the operator as controlled by the respective food business regulation although in respect of serious breach constituting a fire hazard, a Fire Hazard Abatement Notice may be served to the operator and failure to comply with the notice may lead to prosecution under Section 9 of the Fire Services Ordinance.

Electrical System

10. All work to the electrical system, whether for repairs, maintenance or new installation, should be carried out only by a registered electrical worker/contractor certificated by the Director of Electrical and Mechanical Services.
11. The electrical installation and appliances should be regularly maintained and inspected at least once every two years for safety.

12. All portable appliances temporarily connected for the convenience of customers, such as mah-jong lamps, pedestal fans should be un-plugged or switched off when not in use. For electrical installations such as halogen lamps in showcases and lights for decoration, they should be switched off when the premises are unattended.
13. The observance of these precautions is the responsibility of the operator as controlled by the legislation relevant to electrical safety although in respect of dangerous electrical installation constituting a fire hazard, a Fire Hazard Abatement Notice may be served to the operator and failure to comply with the notice may lead to prosecution under Section 9 of Fire Services Ordinance.

Fire Service Installations and Equipment

14. All fire service installations and equipment provided should be:
 - 14.1 Kept clear from any obstruction;
 - 14.2 Clearly indicated as regard to their locations and methods of operation;
 - 14.3 Maintained in efficient working order at all times; and
 - 14.4 Inspected at least once every twelve months.
15. Failure to observe the precautions as described in para. 14.3 and 14.4 may result in the owner of the installations being prosecuted under Regulation 8 of the Fire Services (Installations and Equipment) Regulations.

Ventilation System

16. The ventilation system should be maintained in efficient working order at all times and every damper, filter and precipitator that embodies the use of ducting or trunking

should be inspected at intervals not exceeding 12 months by a registered ventilation contractor.

17. Failure to observe the precaution as described in para. 16 may result in a recommendation being made by the Director of Fire Services to the Food and Environmental Hygiene Department to revoke the food business licence.

Daily Closing Down Inspection

18. The food premises should be thoroughly inspected before closing down each day to:
 - 18.1 Extinguish any possible source of ignition that may be left unattended;
 - 18.2 Switch off the electrical supply if possible, or at least switch off those circuits that are not required; and
 - 18.3 Turn off the fuel supply.
19. This precaution aims to prevent fires occurring in unattended food premises which account for a very high percentage of past statistics.

Emergency Procedures

20. All staff of the food premises should be made aware of the emergency procedures to be taken in the event of a fire. These include:
 - 20.1 Giving warning of the fire by operating the manual fire alarm provided or by shouting “fire”;
 - 20.2 Assisting to evacuate the occupants;
 - 20.3 Reporting to Fire Services through “999”;
 - 20.4 Turning-off the fuel supply if the fire involves the fuel in the kitchen;

- 20.5 Turning the main switch to “OFF” position if the fire involves electrical installation. This should be done only after evacuation of the occupants and when it is safe to do so;
- 20.6 Attempting to extinguish the fire by using the FSI and equipment if it is safe to do so.
- 21. The local fire station should be consulted for advice if required.

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