



FIRE SERVICES DEPARTMENT

FIRE SAFETY STANDARDS
FOR
GENERAL (FAST FOOD) RESTAURANTS

(Explanatory Notes)

Introduction

1. This document consists of three parts :
 - 1.1 These explanatory notes, Form PPA/101(D)-1, containing information relevant to the safe operation of general (fast food) restaurants;
 - 1.2 The standard requirements, Form PPA/101(D)-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(D)-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(E) - Factory canteens with low fire potential;
- 3.5 PPA/101(F) - Light refreshment restaurants with low fire potential;
- 3.6 PPA/101(G) - Light refreshment restaurants with high fire potential;
- 3.7 PPA/101(H) - Barbecue/hot pot restaurants with low fire potential;
- 3.8 PPA/101(I) - General 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 (fast food) restaurants operating :
 - 4.1 On ground floor shops;
 - 4.2 In shopping arcades of commercial building; or
 - 4.3 In parts of industrial buildings where commercial activities are permitted by lease conditions.

Restrictions

- 5. The food premises shall not be located :
 - 5.1 In any buildings/structures which are of sub-standard construction;
 - 5.2 On level 4 of basement or below, if electricity,

town gas or liquid fuels are to be used;

- 5.3 On any floor below ground level, if liquefied petroleum gas is to be used;
- 5.4 In area designed for other use, such as car parks; or
- 5.5 In any industrial buildings. Please refer to Form PPA/101(C) entitled “Bakeries and Food Factories for Manufacture and Sale on Premises”.

Fire Services Requirements

6. The Fire Services requirements as detailed in Form PPA/101(D)-2 are formulated for three purposes :
 - 6.1 To reduce the probability of fire;
 - 6.2 To mitigate the effect of fire; and
 - 6.3 To limit the spread of fire.
7. These requirements do not include those stipulated by the Building Authority, as the controlling authority on :
 - 7.1 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.
 - 7.2 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

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 100mm 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 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.
 - 1.3 On the ground floor of an industrial building, permitted by the lease conditions for such use, the premises shall be completely separated from the remaining parts of the building used for industrial purposes to the standard as stipulated by the Building Authority. As a general guideline, this shall be effected by brick walls of not less than 100mm thick or equivalent to give a fire resisting period (FRP) of not less than one hour; and any door opening giving onto these parts shall be protected by

self-closing door to give a FRP of half an hour.

2. All combustible materials used as false ceilings or wall furnishings 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.
3. All draperies and curtains, if installed, shall be:
 - 3.1 Treated with flame retardant solution and certified by a Class II FSI Contractor; or
 - 3.2 Made of materials containing fire resistant fibres and acceptable to the Director of Fire Services.

Windows

4. 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

5. For general restaurants serving:
 - 5.1 Oriental type fast food to require conventional cooking utensils;
 - 5.1.1 the kitchen shall be completely separated from the remaining part of the premises to the standard as stipulated by the Building Authority.
 - 5.1.2 the food serving opening between the kitchen and the seating accommodation not exceeding 0.2m² in area shall be protected by 44mm hardwood or equivalent drop hatch. For opening exceeding this area, fire shutters as approved by the Director of Fire Services shall be installed, and

5.1.3 shop-front food warming shall be restricted to electrical appliances only.

5.2 European style fast food to require continuous workflow between the kitchen and the service counter; the Building Authority has agreed that the kitchen need not be separated from the seating accommodation provided the cooking range is protected by automatic fire extinguishing system of a type acceptable to the Director of Fire Services, failing which a fire resistant shutter operated by smoke detector(s) shall be provided.

6. The exhaust ducting provided independently for the kitchen in accordance with Bylaw 8 of the Ventilation of Scheduled Premises (Urban Council)/(Regional Council) Bylaws passing any part of the protected means of escape such as corridors, staircases and smoke lobbies shall be protected by building elements giving the same FRP.

Exit Signs

7. 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 125mm high with 15mm strokes. The colour of the letters/characters and contrasting colour on the background shall comply with any one of the following:

Letter Colour	Background Colour
Green	White
White	Green

Electrical Installation

8. The electrical installation shall be inspected and a stability certificate issued by the respective power company or a registered electrical worker/contractor certificated by the Director of Electrical and Mechanical Services. This

stability certificate shall be forwarded to the Director of Fire Services as proof of compliance, and re-validated once every two years.

Fuel for Kitchen

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

Fire Service Installation and Equipment

10. All fire service installation (FSI) and equipment provided for the building shall be retained and maintained in efficient working order and 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.

Portable Fire Fighting Equipment

11. If no portable fire extinguishers or hose reels have been provided as part of the building FSI, portable fire fighting equipment of the approved type shall be provided at the following scales:

11.1 One x 9L CO₂/Water fire extinguisher (FE) for every 100m² of food premises;

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

11.2 One x for every 3 burners unless the cooking range is protected by automatic fire extinguishing system;

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

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

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

Ventilation System

12. The ventilations system, if installed, shall be inspected by Ventilation division of the Fire Services Department and certified to comply with Bylaw 4 of Ventilation of Scheduled Premises (UC/RC) Bylaws.

PU Foam

13. 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 shop;
 - 1.1.1 the entire width of the shop front, and
 - 1.1.2 all exits giving onto the open area.
 - 1.2 In the case of shopping arcade in commercial building, or parts of industrial building where commercial activities are permitted by lease conditions;
 - 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 or the street level.
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 when the building is occupied; 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 seating accommodation at any time should not exceed the limit approved by the Building Authority. As a general guideline, an area of 1 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 combustibles should be regularly cleared particularly the rubbish bins where lighted, cigarette ends may be deposited.
6. Food packaging made of expanded polystyrene foam should be stored in cupboards or contained in metal dispensers to avoid coming into contact with excess heat or 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.

Electrical System

8. All works 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.
9. The electrical installation and appliance should be regularly maintained and inspected at least once every two years for safety.
10. 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 the Fire Services Ordinance.

Fire Service Installations and Equipment

11. All fire service installations and equipment provided should be:
 - 11.1 Kept clear from any obstruction;
 - 11.2 Clearly indicated as regard to their locations and methods of operation;
 - 11.3 Maintained in efficient working order at all times; and
 - 11.4 Inspected at least once every twelve months
12. Failure to observe the precautions as described in para. 11.3 and 11.4 may result in the owner of the installations being prosecuted under Regulation 8 of the Fire Services (Installations and equipment) Regulations.

Ventilation System

13. 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.
14. Failure to observe the precaution as described in para. 13 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

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

Emergency Procedures

17. 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:
 - 17.1 Giving warning of the fire by operating the manual fire alarm provided as part of the building FSI, or by shouting “fire”;
 - 17.2 Assisting to evacuate the occupants;
 - 17.3 Reporting to Fire Services through “999”;
 - 17.4 Turning-off the fuel supply if the fire involves the fuel in the kitchen;
 - 17.5 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; and
 - 17.6 Attempting to extinguish the fire by using the FSI and equipment if it is safe to do so.
18. The local fire station should be consulted for advice if required.

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