

FIRE SERVICES DEPARTMENT
FIRE SAFETY STANDARDS
FOR
1. FACTORY CANTEENS WITH HIGH FIRE POTENTIAL
2. BARBECUE/HOT POT RESTAURANTS WITH HIGH FIRE POTENTIAL
3. GNEREAAL RESTAURANTS WITH HIGH FIRE POTENTIAL
(Explanatory Notes)

Introduction

1. This document consists of three parts: -
 - 1.1 These explanatory notes, Form PPA/101(J)-1, containing information relevant to the safe operation of: -
 - 1.1.1 Factory canteens with high fire potential;
 - 1.1.2 Barbecue/hot pot restaurants with high fire potential; and
 - 1.1.3 General restaurants with high fire potential.
 - 1.2 The standard requirements, Form PPA/101(J)-2, to be complied with prior to the issue of Fire Services Certificate required for the licensing of food premises under Food Business Regulation; and
 - 1.3 Fire precautions, Form PPA/101(J)-3, that should be observed for the safe operation of food premises after issue of the 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 failing which these requirements may be enforced under Section 9 of the Fire Services Ordinance.
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(I) - General restaurants with low fire potential;

Application

- 4. The contents of this document apply to food businesses operating in premises over 126 square metres in area and lavishly decorated to pose a high fire potential due to any one of the following conditions: -
 - 4.1 The average quantity of combustible materials in the seating accommodation exceed 60 kilograms per square metre; or
 - 4.2 Combustible materials are used for the false ceiling; or
 - 4.3 More than 30% of the seating accommodation are partitioned by combustible material to form cubicle(s); or
 - 4.4 The designed openable/breakable windows are obstructed by decoration or sealed up for more than 50% of the area totally, or 25% of these areas on the upper part.

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 LP gas is to be used;
 - 5.4 In area designed for emergency use, such as the buffer floor (also referred to as the refuge floor);
 - 5.5 In area designed for other use, such as car parks; or
 - 5.6 Vertically below or immediately above to pose a fire hazard to a registered school/child care centre; or
 - 5.7 In any industrial building, unless the premises are intended for use as factory canteen with high fire potential.

Fire Services Requirements

6. The Fire Services requirements as detailed in Form PPA/101(J)-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 14 and 15 of the Fire Services (Fire Hazard Abatement) Regulation (Cap.95 sub. leg.).
 - 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 effect the fire safety, the Director of Fire Services may refuse to issue Fire Services Certificate in accordance with Food Business Regulations.

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(Standard Requirements)

Premises

1. The premises shall be separated from other occupancies 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 or equivalent to give a FRP of half an hour.
2. All combustible materials used as false ceilings, partitions and 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. Where cubicles are erected or furniture placed to form seating accommodation, a passage of not less than 1 metre wide shall be maintained from any one exit to the opposite end of the interior of the premises or other exits to form a clear area for circulation and evacuation.
4. All draperies and curtains, if installed, shall be: -
 - 4.1 Treated with flame retardant solutions and certified by a Class II FSI Contractor; or
 - 4.2 Made of materials, containing fire resistant fabric and acceptable to the Director of Fire Services.

Windows

5. 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 protected by a dedicated smoke extraction system.

Kitchen

6. The kitchen shall be separated from the remaining parts of the premises 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 FRP of one hour; and any door opening giving onto the kitchen protected by self-closing door or equivalent to give a FRP of half an hour.

7. The food serving opening between the kitchen and the seating accommodation shall not exceed 0.2 square metre in area and shall be protected by 44mm hardwood or equivalent drop hatch.
8. The exhaust ducting provided independently for the kitchen in accordance with Section 8 of the Ventilation of Scheduled Premises Regulation (Cap.132 sub. leg.) 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

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 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: -

<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 occupants to identify the exits in the event of an emergency.

Fuel for Kitchen

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

Fuel for Seating Accommodation

12. The requirements for the use of fuels in the seating accommodation are stipulated in Form PPA/117.

Fire Service Installations and Equipment

13. All fire service installations (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.
14. Unless already installed as part of the building’s fire protection, FSI’s at the following scales shall be provided for premises occupying areas exceeding 126 square metres: -

- 14.1 For premises occupying an area exceeding 126 but less than 230 square metres: -
 - 14.1.1 A hydrant/hose reel system in accordance with the Code of Practice for Minimum Fire Service Installations and Equipment.
 - 14.1.2 A manual fire alarm system in accordance with the Code of Practice for Minimum Fire Service Installations and Equipment with operating switch at each of the following locations: -
 - 14.1.2.1 Near each exit;
 - 14.1.2.2 At the main entrance; and
 - 14.1.2.3 At the cashier's counter.
 - 14.1.3 An automatic smoke detection system in accordance with the Rules of the Loss Prevention Council, UK and connected to the Computerised Fire Alarm Transmission System; and
 - 14.1.4 A dedicated smoke extraction system as the alternative to reinstating at least 50% of the designed openable/breakable windows to their original condition unless the premises are located in basements not protected by sprinkler system in which event retro-fitting of such sprinkler system shall be required.
- 14.2 For premises occupying an area exceeding 230 square metres but less than 7000 cubic metres in cubic volume: -
 - 14.2.1 A hydrant/hose reel system in accordance with the Code of Practice for Minimum Fire Service Installations and Equipment.
 - 14.2.2 A manual fire alarm system in accordance with the Code of Practice for Minimum Fire Service Installations and Equipment with operating switch at each of the following locations: -
 - 14.2.2.1 Near each exit;
 - 14.2.2.2 At the main entrance; and
 - 14.2.2.3 At the cashier's counter.
 - 14.2.3 A sprinkler system to the standards of the Rules of the Loss Prevention Council. For retro-fitting of such system, a compromised standard with water supplied directly from town's mains may be accepted subject to approval of Director of Water Supplies.

- 14.2.4 A dedicated smoke extraction system as the alternative to reinstating at least 50% of the designed openable/breakable windows to their original condition unless the premises are located in curtain-walled buildings or basements in which event the sprinkler heads of the sprinkler system shall be of the fast response type and each spaced to protect an area of 9 square metres; and
- 14.2.5 Each exit shall be provided with schematic signs firmly fixed on the wall outside to depict the layout of the premises. These signs shall be made of yellow plastics of not less than 300mm wide and 300mm high and engraved to the scale of not more than 1:200 with the following information: -
 - 14.2.5.1 General layout of the premises showing the rooms partitioned, locations of furniture and fixtures;
 - 14.2.5.2 Passages designed for circulation and evacuation, and the related exits/doors; and
 - 14.2.5.3 The locations of electrical main switch and fuel supply valve.
- 14.3 For premises with a cubic volume of exceeding 7000 cubic metres: -
 - 14.3.1 A hydrant/hose reel system in accordance with the Code of Practice for Minimum Fire Service Installations and Equipment.
 - 14.3.2 A manual fire alarm system in accordance with the Code of Practice for Minimum Fire Service Installations and Equipment with operating switch at each of the following locations: -
 - 14.3.2.1 Near each exit;
 - 14.3.2.2 At the main entrance; and
 - 14.3.2.3 At the cashier's counter.
 - 14.3.3 A sprinkler system to the standards of the Rules of the Loss Prevention Council. For retro-fitting of such system, a compromised standard with water supplied directly from town's mains may be accepted subject to approval of Director of Water Supplies.
 - 14.3.4 A dedicated smoke extraction system as the alternative to reinstating at least 50% of the designed openable/breakable windows to their original condition. In respect of premises located in curtain-walled buildings or basement, this system shall be provided; and
 - 14.3.5 Each exit shall be provided with schematic signs firmly fixed on the wall outside to depict the layout of the premises. These signs shall be made of yellow plastics of not less than 300mm wide and 300mm high and engraved to the scale of not more than 1:200 with the following information: -

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- 14.3.5.1 General layout of the premises showing the rooms partitioned, locations of furniture and fixtures;
- 14.3.5.2 Passages designed for circulation and evacuation, and the related exits/doors; and
- 14.3.5.3 The locations of electrical main switch and fuel supply valve.

Portable Fire Fighting Equipment

15. One x 4.5 kg CO₂ extinguisher (FE) shall be provided for every 3 burners in the kitchen: -

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

16. One x 1.44 square metre fire blanket for every 3 frying pans/woks using oils/fat for deep frying: -

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

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. If PU foam filled mattresses and upholstered furniture are used within the premises, they shall meet flammability standard as specified in British Standard BS 7177 : 1996 and BS 7176 : 1995 for use in medium hazard premises/building or standards acceptable to 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 2 of the Fire Services (Fire Hazard Abatement) Regulation (Cap. 95 sub. leg.):-
 - 1.1 All normal means of egress from the food premises including corridors, passages and staircases whether or not protected by building elements with rated fire resisting period (FRP);
 - 1.2 Passage 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 All exits/doors giving onto any corridor leading to open, or directly giving onto the open; and
 - 1.4 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.
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 other than watchman are present in the building (if 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 14 and 15 of the Fire Services (Fire Hazard Abatement) Regulation (Cap. 95 sub. leg.) without prior warning.
4. For Factory Canteens with High Fire Potential, the admission of members of the public to any industrial building may expose them to the dangers they are unfamiliar with, nor prepared to face. Therefore, non-regular users of the building should be discouraged, and persons in the following categories restricted from using any factory canteen: -

- 4.1 Those who are of very old or your age to require care and attention of any other adult; and
- 4.2 Those who are physically handicapped.

Premises

5. The number of persons permitted in the seating accommodation at any time should not exceed the limit approved by the Buildings Authority.
6. All cigarette ends should be completely extinguished before disposal, particularly when these are likely to come into contact with combustibles, such as table cloth awaiting collection for cleaning.
7. Food packaging made of expanded polystyrene foam should be stored in cupboards to avoid coming into contact with excessive heat or naked flame.
8. For parts of premises ventilated by mechanical means, expanded polystyrene foam should not be used for decorative purposes.
9. Failure to observe the precautions as described in para 6 to 8 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 (Fire Hazard Abatement) Regulation (Cap. 95 sub. leg.).

Kitchen

10. All walls, stoves and exhaust ducts should be cleaned regularly to remove the oils and grease accumulated as a precaution against fire.
11. 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 (Fire Hazard Abatement) Regulation (Cap. 95 sub. leg.).

Fire Service Installation and Equipment

12. All fire service installations and equipment provided should be: -
 - 12.1 Kept clear from any obstruction;
 - 12.2 Clearly indicated as regard to their locations and methods of operation;
 - 12.3 Maintained in efficient working order at all times; and
 - 12.4 Inspected at least once every twelve months.

13. In addition to and as part of the monthly fire drill, the sprinkler system and hose reel system should be tested to ensure these are operating in efficient working order.
14. Failure to observe the precautions as described in para 12.3 and 12.4 may result in the owner of the installations being prosecuted under Regulation 8 of the Fire Services (Installations and Equipment) Regulations (Cap. 95 sub. leg.).

Ventilating System

15. The ventilating 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.
16. Failure to observe the precautions as described in para 15 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

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

Emergency Procedures

19. 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: -
 - 19.1 Giving warning of the fire by operating the manual fire alarm provided as part of building FSI or by shouting “fire”;
 - 19.2 Assisting to evacuate the occupants;
 - 19.3 Reporting to Fire Services through “999”;
 - 19.4 Turning-off the fuel supply if the fire involves the fuel in the kitchen;
 - 19.5 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;

- 19.6 Attempting to extinguish the fire by using the FSI and equipment if it is safe to do so; and
- 19.7 Reporting the situation to the Fire Officers on their arrival, particularly when persons are being trapped and in need of assistance.

20. The local fire station should be consulted for advice if required.

Monthly Fire Drills

21. Fire drills should be conducted at monthly intervals to: -

- 21.1 Test the sprinkler/smoke extraction system (if installed) and hose reel system; and
- 21.2 Practice the emergency procedures.

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