

**FIRE SERVICES DEPARTMENT**  
**FIRE SAFETY STANDARDS**  
**FOR**  
**FACTORY CANTEENS WITH LOW FIRE POTENTIAL**  
**(Explanatory Notes)**

Introduction

1. This document consists of three parts: -
  - 1.1 These explanatory notes, Form PPA/101(E)-1, containing information relevant to the safe operation of factory canteens with low fire potential;
  - 1.2 The standard requirements, Form PPA/101(E)-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(E)-3, that should be observed for the safe operation of the food business 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.
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(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 factory canteens operating in industrial buildings to provided food service to regular users in the same buildings. These canteens are modestly decorated to pose a low fire potential which means either: -
  - 4.1 The premises do not exceed 126 square metres in area; or
  - 4.2 The premises, although over 126 square metres in area meet ALL the following conditions:
    - 4.2.1 The average quantity of combustible materials in the premises does not exceed 60 kilograms per square metre; and
    - 4.2.2 The area partitioned by combustibles does not exceed 30% of the total area occupied; and
    - 4.2.3 Combustible materials are not used for the false ceiling; and
    - 4.2.4 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 square metres in area but do not meet ALL the conditions as described in para 4.2 are deemed as factory canteens with high fire potential in respect of which the contents of Form PPA/101(J) shall apply.

### Restrictions

6. The factory canteen 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, towngas or liquid fuels are to be used;
  - 6.3 On any floor below ground level, if LP 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); and
  - 6.5 In premises designed for other use, such as car parks.

### Fire Services Requirements

7. The Fire Services requirements as detailed in Form PPA/101(E)-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 14 and 15 of the Fire Services (Fire Hazard Abatement) Regulation (Cap.95 sub. leg.).
  - 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

1. The premises shall be completely separated from other occupancies to the standard as stipulated by the Building Authority.
2. The premises shall not be installed with false ceilings, wall furnishings or carpets made of combustible materials.
3. If an area not exceeding 30% of the total area is partitioned by combustible materials, these shall be of Class 1 or 2 Rate of Surface Spread of Flame as per British Standard 476: Part 7, or be brought up to that standard by treating with two coatings of an approved fire retardant paint/solution on all exposed parts and certified by a Class II Fire Service Installation (FSI) Contractor.
4. All draperies and curtains, if installed, shall be: -
  - 4.1 Made of material, containing fire resistant fabric and should conform with British Standard 5867: Part 2 fabric type B when tested in accordance with British Standard 5438; or
  - 4.2 Treated with an approved fire retardant solution conforming to that standard and certified by a Class II FSI Contractor.

Windows

5. The windows of the factory canteens 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

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.

Exit Signs

8. 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

Fuel

9. The requirements for the use of fuels in factory canteens shall follow those as stipulated in Form PPA/102.

Fire Service Installations and Equipment

10. 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.

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 CO<sub>2</sub>/Water extinguisher (FE) for every 100 square metres of factory canteen: -

$$\frac{\text{Area of Factory Canteen in square metre}}{100 \text{ square metre}} = \text{_____ CO}_2\text{/Water FE}$$

- 11.2 One x 4.5 kg CO<sub>2</sub> fire extinguisher (FE) for every 3 burners in the kitchen: -

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

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

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

Secondary Lighting

12. 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

13. 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 A passage of 1 metre wide linking any exit to the opposite end of the interior of the premises or other exits to form a clear route for circulation and evacuation;
  - 1.2 All exits giving onto any corridor leading to the open, or directly giving onto the open; and
  - 1.3 All parts of common area leading from designed exits/doors to a place of safety in open air either on the roof, the buffer floor or the street level.
2. All means of escape should be kept free from obstruction at all times when persons are present in the industrial buildings. In particular: -
  - 2.1 No matter or thing may be left in the areas as defined at para. 1 above;
  - 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 when the building is occupied.
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.

Premises

4. The admission of members of the public to any industrial building may expose them to fire dangers they are unaware of, 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 young age to require care and attention of any other adult; and
  - 4.2 Those who are physically handicapped.

5. The number of persons permitted in the seating accommodation at any time should not exceed the limit approved by the Building 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. Failure to observe the precautions as described in para 6 to 7 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

9. All walls, stoves and exhaust ducts should be cleaned regularly to remove the oils and grease accumulated as a precaution against fire.
10. The observance of this precaution is the responsibility of the operator as controlled by the respective food business bylaws 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 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 (Cap.95 sub. leg.).

#### Ventilating System

13. 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.

14. Failure to observe the precautions as described in para 13 may result in 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 factory canteen 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 main 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 factory canteen 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;
  - 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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