

**FIRE SERVICES DEPARTMENT**  
**FIRE SAFETY STANDARDS**  
**FOR**  
**BAKERIES AND FOOD FACTORIES FOR MANUFACTURE ONLY**  
**(Explanatory Notes)**

Introduction

1. This document consists of three parts: -
  - 1.1 These explanatory notes, Form PPA/101(B)-1, containing information relevant to the safe operation of this type of bakeries and food factories;
  - 1.2 The standard requirements, Form PPA/101(B)-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(B)-3, in respect of common areas of the building and items not covered by the Factories and Industrial Undertaking (Fire Precautions) Regulations, that should be observed for the safe operation of food factory after issue of licence.
2. These requirements are stipulated for the safe operation of the bakeries and food factories for manufacture only and it should be noted that where appropriate the Commissioner for Labour may, under the provisions of the Factories and Industrial Undertaking (Fire Precautions in Notifiable Workplaces) Regulations, stipulate additional requirements for the safety of the workers, and fire precautions to be observed.
3. 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.
4. For other types of food business classified according to the risks they impose, please refer to: -
  - 4.1 PPA/101(A) - Food businesses in small houses;
  - 4.2 PPA/101(C) - Bakeries and food factories for manufacture and sale on premises;
  - 4.3 PPA/101(D) - General (fast food) restaurants;
  - 4.4 PPA/101(E) - Factory canteens with low fire potential;
  - 4.5 PPA/101(F) - Light refreshment restaurants with low fire potential;
  - 4.6 PPA/101(G) - Light refreshment restaurants with high fire potential;

- 4.7 PPA/101(H) - Barbecue/hot pot restaurants with low fire potential;
- 4.8 PPA/101(I) - General restaurants with low fire potential;
- 4.9 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

- 5. The contents of this document apply to food factories operating in any premises for the manufacture or preparation of food and do not involve sale on the premises. In terms of licensing requirements under Food Business Regulation (Cap. 132 sub leg), these may either be for the purpose of applying for a Bakery licence or a Food Factory licence.

#### Restrictions

- 6. The food factory shall not be located: -
  - 6.1 In area designed for emergency use, such as the buffer floor (also referred to as the refuge floor); or
  - 6.2 In area designed for other use, such as car parks.

#### Fire Services Requirements

- 7. The Fire Services requirements as detailed in Form PPA/101(B)-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: -
  - 8.1 Means of escape from the bakery or food factory to common area, in respect of which the Commissioner for Labour, where appropriate, is the controlling authority. The means of escape in common area will be 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 in respect of which the Building Authority is the controlling authority. 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. 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.

Exit Signs

2. 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

3. The requirements for the use of fuels in food factories shall follow those as stipulated in Form PPA/102.

Fire Service Installations and Equipment

4. 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

5. If no portable fire fighting extinguishers or hose reels have been provided as part of the building FSI, or as requirements formulated by the Commissioner for Labour for the protection of workers, one x 9L CO<sub>2</sub>/Water fire extinguisher (FE) shall be provided for every 100 square metres of work area: -

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

6. Portable fire fighting equipment of the approved type, over and above those installed for the occupation of the building, or formulated by the Commissioner for Labour for the protection of the workers shall be provided at the following scales: -

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

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

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

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

#### Ventilating System

7. Drawings of the ventilating system shall be submitted to the Ventilation Division of the Fire Services Department before the commencement of the installation works. Upon completion of work, the Ventilation Division should be notified in writing to check for compliance.
8. The mechanical ventilating system installed in the premises shall comply with the Building (Ventilating Systems) Regulations (Cap.123 sub. leg.) and the fire safety requirements for mechanical ventilating systems as stipulated in the Fire Services Department Circular Letter No. 4/96 Part XI.

#### PU Foam

9. 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)**

Introduction

1. The contents of this document do not include fire precautions within the premises covering kitchen, electrical system, daily closing down inspections and emergency procedures in respect of which the Commissioner for Labour is the controlling authority.

Means of Escape

2. The means of escape from the food factory inside are controlled by the Commissioner for Labour under the provisions of the Factories and Industrial Undertakings (Fire Precautions in Notifiable Workplaces) Regulations.
3. All parts of common area leading from designed exits/doors to a place of safety in open air whether on the roof, the buffer floor or the street level 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.) and should be kept free from obstruction at any time when the building is occupied.
4. Failure to observe the precautions as described in para 3 above may result in the operator and/or the responsible persons being prosecuted under Section 14 and 15 of the Fire Services (Fire Hazard Abatement) Regulation (Cap.95 sub. leg.) without prior warning.

Fire Service Installations and Equipment

5. All fire service installations and equipment provided should be: -
  - 5.1 Kept clear from any obstruction;
  - 5.2 Clearly indicated as regard to their locations and methods of operation;
  - 5.3 Maintained in efficient working order at all times; and
  - 5.4 Inspected at least once every twelve months.
6. Failure to observe the precautions as described in para 5.3 and 5.4 may result in the owner of these installations being prosecuted under Regulation 8 of the Fire Services (Installations and Equipment) Regulations (Cap.95 sub. leg.).

### Ventilating System

7. If the ducting or trunking of ventilating system installed on the premises passes through any wall, floor or ceiling from one compartment of the building to another, the owner of the ventilating system should: -
  - 7.1 Keep such ventilating system in safe and efficient working order at all times; and
  - 7.2 Cause every damper, filter and precipitator in such ventilation system to be inspected by a registered ventilation contractor at least once in every twelve months.
8. Failure to observe these precautions may lead to the owner being prosecuted under Section 5 of the Building (Ventilating Systems) Regulations (Cap.123 sub.leg.).

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