

FIRE SERVICES DEPARTMENT
FIRE SAFETY STANDARDS
FOR
BAKERIES AND FOOD FACTORIES FOR MANUFACTURE AND SALE ON PREMISES
(Explanatory Notes)

Introduction

1. This document consists of three parts: -
 - 1.1 These explanatory notes, Form PPA/101(C)-1, containing information relevant to the safe operation of this type of bakeries and food factories;
 - 1.2 The standard requirements, Form PPA/101(C)-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(C)-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(D) - General (fast food) restaurants;
 - 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 food factories which involve the manufacture or preparation of food for sale on the premises such as bakeries and fast food shops without seating accommodation. In terms of licencing 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

5. The food factory shall not be located: -
 - 5.1 In the case of non-industrial buildings: -
 - 5.1.1 In area designed for emergency use, such as the buffer floor (also referred to as the refuge floor); or
 - 5.1.2 In area designed for other use, such as car parks;
 - 5.2 In the case of industrial buildings, in any area other than the ground floor only as admission of members of public to such buildings may expose them to dangers they are not aware of, nor prepared to face. The area of the premises shall not exceed 230 square metres.

Fire Services Requirements

6. The Fire Services requirements as detailed in Form PPA/101(C)-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 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 factory is to be located: -
 - 1.1 In a non-industrial building, the premises shall be completely separated from other occupancies to the standard as stipulated by the Building Authority.
 - 1.2 On the ground floor of an industrial building, 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.
2. All combustible materials, if used as false ceilings, partitions and wall furnishings, 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.
3. All draperies and curtains, if installed, shall be: -
 - 3.1 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
 - 3.2 Treated with an approved fire retardant solution conforming to that standard and certified by a Class II FSI Contractor.

Exit Signs

4. All exits, if provided, shall be suitably 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

Green
White

Background Colour

White
Green

Fuel

5. Only electricity, town gas and LP gas not exceeding 50 kg in quantity may be used for baking/water boiling/food warming purposes. The requirements for the types of fuels are stipulated in Form PPA/102.

Fire Service Installations and Equipment

6. 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

7. 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: -

- 7.1 One x 9L CO₂/Water extinguisher (FE) for every 100 square metres of food premises: -

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

- 7.2 One x 4.5 kg CO₂ fire extinguisher (FE) for every 3 burners in the kitchen: -

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

Ventilating System

8. If the ducting or trunking of the ventilating system installed on the premises passes through any wall, floor or ceiling from one compartment of the building to another, the system shall be inspected by the Ventilation Division of the Fire Services Department and certified to comply with the Building (Ventilating Systems) Regulations (Cap.123 sub. leg.).

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)

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 In the case of open-front premises, the entire width of the shop front;
 - 1.2 In the case of premises provided with doors and exits, all such exits/doors giving onto any corridor leading to the open, or directly giving onto the open.
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 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 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 number of persons permitted in the sale area at any time should not exceed the limit approved by the Buildings Authority.
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 excessive heat or naked flame.
7. Failure to observe the precautions as described in para 5 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 (Fire Hazard Abatement) Regulation (Cap.95 sub. leg.).

Fire Service Installations and Equipment

8. All fire service installations and equipment provided should be: -
 - 8.1 Kept clear from any obstruction;
 - 8.2 Clearly indicated as regard to their locations and methods of operation;
 - 8.3 Maintained in efficient working order at all times; and
 - 8.4 Inspected at least once every twelve months.
9. Failure to observe the precautions as described in para 8.3 and 8.4 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

10. 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: -
 - 10.1 Keep such ventilating system in safe and efficient working order at all times; and
 - 10.2 Cause every damper, filter and precipitator in such ventilating system to be inspected by a registered ventilation contractor at least once in every twelve months.
11. 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.).

Daily Closing Down Inspection

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

Emergency Procedures

14. 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: -
 - 14.1 Giving warning of the fire by operating the manual fire alarm provided as part of the building FSI or by shouting “fire”;
 - 14.2 Assisting to evacuate the occupants;
 - 14.3 Reporting to Fire Services through “999”;
 - 14.4 Turning-off the fuel supply if the fire involves food warming utensils;
 - 14.5 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
 - 14.6 Attempting to extinguish the fire by using the FSI and equipment if it is safe to do so.
15. The local fire station should be consulted for advice if required.

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