

Chapter 4 Maintenance

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4. Introduction

Food premises and equipment that are not kept in good repair and condition are a potential source of microbiological and physical contamination of food. Poorly maintained premises and equipment cannot be cleaned effectively. Poor maintenance may allow the entry of other sources of physical, microbiological and chemical contaminants such as water, pests and dust. Poor maintenance can have health and safety implications for workers. Procedures are needed to minimise the risk of such hazards causing illness to consumers.

Examples demonstrating the importance of maintenance:

Problem	Effect	Possible outcome
The fabric of the building (such as walls, floors, roofing) is not maintained in good repair	Foreign material, such as fragments of masonry and mortar, pieces of wall or roof tile, paint flakes, rust, insulation may contaminate the product	Contamination of food products
Deteriorated surfaces	Pits and crevices occur	Cleaning becomes difficult or impossible, leading to accumulation of dirt
Leaking roof, doors or windows	Rainwater enters the premises	A source of microbiological contamination
Inadequate building and curtilage maintenance	Pests are able to enter the premises	A source of physical and microbiological contamination
Plumbing fixtures and drains are not regularly maintained	Non-potable or waste water enters food handling areas	A source of microbiological contamination
Ventilation systems are not maintained in good condition	Dust and dirt particles are allowed to circulate	A source of physical and microbiological contamination
Equipment and machinery is poorly maintained	Nuts and bolts, washers, small metal or plastic components, metal shavings (swarf), non food-grade lubricants, are all sources of physical contamination	Contamination of food products
Chilling facilities are poorly maintained	Equipment breakdowns, for example, chillers are out of action	Production delays and product deterioration

4.1. Maintenance checks

All premises require maintenance to keep them in a suitable and safe condition for handling food. Food business operators need to establish routines for checking structures, facilities and equipment, for example, buildings, water distribution systems, vehicles, chillers, to determine their condition, whether maintenance is necessary and how soon repairs must be carried out or replacements obtained.

4.2. Maintenance checklist and plan

A maintenance checklist is recommended to make sure that no area or piece of equipment is left uninspected for too long. A maintenance plan will demonstrate that the need for action has been considered and indicate when it is to be carried out and completed.

See 'Annex 1.' for a maintenance checklist, and 'Annex 2.' for a maintenance plan at the end of this chapter.

4.3. Legal requirements for maintenance

The following section sets out the maintenance requirements of the regulations that apply to slaughter, dressing and the further processing of meat.

A. Maintenance

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Legal requirement

852/2004 Annex II Premises: Chapter I points 1 and 2

A1. The layout, design, construction, siting and size of food premises are to permit adequate maintenance ... and to allow for hygienic performance of all operations.

852/2004 Annex II Rooms: Chapter II point 1 (a) (b) and (f)

A2. In rooms where food is prepared, treated or processed (excluding dining areas and those premises specified in Chapter III ...), the design and layout are to permit good hygiene practices, including protection against contamination between and during operations. In particular, floor surfaces ... wall surfaces ... and surfaces (including surfaces of equipment) in areas where foods are handled and in particular those in contact with food are to be maintained in a sound condition.

A1. and A2. Compliance regarding design and layout for maintenance

- Take maintenance requirements into account in the general design and construction of food premises and, in particular, in rooms where food is prepared, treated or processed or when buildings are rebuilt, altered or refurbished.

A1. and A2. Good practice

Quality - consider the importance of good quality construction materials, finishes, and of fittings and equipment to be used as this will affect their durability and need for future maintenance.

Space and access - consider the need to allow sufficient space and access to all parts of buildings, fittings and equipment so that maintenance can be carried out, as well as health and safety considerations.

See relevant topics below and also separate chapter 'Design and 'facilities', particularly sections 'A. General', 'B. Rooms', and 'C. Equipment'.

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Legal requirement

852/2004 Annex II Premises: Chapter I points 1 and 2

A3. Food premises are to be kept clean and maintained in good repair and condition.

852/2004 Annex II Transport: Chapter IV point 1

A4. Conveyances and / or containers used for transporting foodstuffs are to be ... maintained in good repair and condition to protect foodstuffs from contamination.

852/2004 Annex II Equipment: Chapter V points 1(b) and (c)

A5. All articles, fittings and equipment with which food comes into contact are to be so constructed, be of such materials and be kept in such good order, repair and condition as to minimise any risk of contamination. With the exception of non-returnable containers and packaging, be so constructed, be of such materials and be kept in such good order, repair and condition as to enable them to be kept clean.

852/2004 Annex II Foodstuffs: Chapter IX point 3

A6. At all stages of production, processing and distribution, food is to be protected against any contamination likely to render the food unfit for human consumption, injurious to health or contaminated in such a way that it would be unreasonable to expect it to be consumed in that state.

A3. to A6. Compliance regarding maintenance checks

- Make sure that surfaces in food handling areas and all surfaces, articles, fittings and equipment in food premises that come in contact with food and vehicles and containers used to transport food are maintained in good repair and condition.
- Protect food against contamination at all stages of production, processing and distribution

A3. to A6. Good practice

Regular checks can give early warning of potential maintenance problems so that action can be taken to prevent contamination, an accident or more serious deterioration. Staff who carry out checks need to understand what standard is acceptable and what constitutes significant damage.

Routine - establish a routine for checking all parts of the premises and particularly those areas where food is handled, as well as vehicles and containers used for transporting food.

Model checklist – see maintenance checklist and maintenance plan in the annexes at the end of this chapter.

Buildings - checks should include external and internal parts of the premises, such as fencing, yards, stores, loading / unloading areas, lairages / animal holding areas, roofs, roof spaces, guttering, damp courses, drain pipes, drains, ventilation systems, plumbing, light fittings.

Surfaces - checks should include floors, walls, ceilings, doors, windows and screens as well as food-contact surfaces and food containers. Exterior damage may allow damp to penetrate the building and lead to mould growth on interior surfaces.

Articles, fittings and equipment - checks should include conveyors, cutting surfaces, control systems, processing equipment, cooking, chilling and freezing equipment, metal detectors, shackles, dolavs, filters, components, bearings and lubrication points. Manufacturer's maintenance manuals are helpful in identifying components that need regular inspection or adjustment.

Frequency of maintenance checks - this will depend on the likelihood of wear or damage being found. For example, tiled floors in high traffic areas are much more likely to be damaged than coated concrete floors in storerooms. Pay particular attention to food handling areas. Specialist equipment, particularly those with temperature controls (for example, chillers, freezers or heat treatment equipment) is likely to need regular attention from competent engineers.



Legal requirement

852/2004 Annex II Rooms: Chapter II point 1 (a) (b) and (f)

A2. In rooms where food is prepared, treated or processed (excluding dining areas and those premises specified in Chapter III ...), the design and layout are to permit good hygiene practices, including protection against contamination between and during operations. In particular, floor surfaces ... wall surfaces ... and surfaces (including surfaces of equipment) in areas where foods are handled and in particular those in contact with food are to be maintained in a sound condition.

852/2004 Annex II Premises: Chapter I points 1 and 2

A3. Food premises are to be kept clean and maintained in good repair and condition.

852/2004 Annex II Equipment: Chapter V points 1(b) and (c)

A5. All articles, fittings and equipment with which food comes into contact are to be so constructed, be of such materials and be kept in such good order, repair and condition as to minimise any risk of contamination. With the exception of non-returnable containers and packaging, be so constructed, be of such materials and be kept in such good order, repair and condition as to enable them to be kept clean.

852/2004 Annex II Foodstuffs: Chapter IX point 3

A6. At all stages of production, processing and distribution, food is to be protected against any contamination likely to render the food unfit for human consumption, injurious to health or contaminated in such a way that it would be unreasonable to expect it to be consumed in that state.

A2. A3. A5. and A6. Compliance regarding maintenance plans

Make sure that:

- structures, facilities and equipment in food handling areas and particularly all surfaces, articles, fittings and equipment that come in contact with food are maintained in good repair and condition
- food preparation, treatment or processing rooms permit good hygiene practices, including protection against contamination between and during operations
- at all stages of production, processing and distribution, food is to be protected against contamination

A2. A3. A5. and A6. Good practice

A maintenance plan should be established to carry out work before emergency repairs are needed and perhaps provide an opportunity to make improvements that could reduce future maintenance costs.

Prioritise repair work so that problems with the greatest potential impact on food safety are tackled

in a timely way.

Repair or replace damaged or worn surfaces or items, as soon as is practicably possible, to keep all areas but particularly food handling areas in good condition. Make sure that temperature control equipment (for example, chillers) is repaired without delay as storage or processing of foods at incorrect temperatures can allow the growth or survival of food poisoning bacteria. If a temporary repair has been made to prevent contamination, make sure that the need for a permanent repair is added to the maintenance plan.

Repairs in food handling areas should normally be carried out during breaks in production. If it is necessary to repair items while production is in progress, the food must be properly protected from contamination while the work is being carried out.

Spare parts and maintenance materials - make sure that all parts and materials used in repair work are compatible with food safety. Store parts and materials so that they do not act as sources of contamination.

Personal hygiene - make sure that in-house staff or contractors carrying out maintenance checks and repairs are aware of the food safety implications of their work and follow the company's personal hygiene rules. See chapter 8 on 'Personal hygiene'.

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Legal requirement

852/2004 Annex II Training: Chapter XII point 1

A7. Food business operators ensure that food handlers are supervised and instructed and / or trained in food hygiene matters commensurate with their work activity.

A7. Compliance regarding training, instruction and supervision

- Make sure that food handlers are supervised and instructed and / or trained in food hygiene matters commensurate with their work activity.
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A7. Good practice

Instruct staff, and any contract maintenance workers, about the need to avoid contamination of food during maintenance work, to use appropriate maintenance materials and storage of materials, equipment and spares safely and to report problems promptly. Supervise as appropriate and issue reminders if lapses occur.

Keep accurate, dated records to show what instruction / training individuals have received. See chapter 7 on 'Training'.

4.4. Official control requirements

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Legal requirement

854/2004 Article 4 point 4b

Audits by officials of good hygiene practices shall verify that meat plant operators apply procedures concerning at least the maintenance of premises and equipment continuously and properly.

