

MAY05 WORKING DRAFT

PART TWO

1. DESIGN AND FACILITIES

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1.1 WHY ARE DESIGN AND FACILITIES IMPORTANT?

The location, design, layout and construction of food premises and the choice of fixtures, fittings and equipment are crucial to ensure that food businesses can operate under hygienic conditions and produce food safely. Poorly designed and constructed buildings and equipment are potential source of physical, chemical and microbiological hazards. Such hazards could cause illness or injury to consumers and so must be prevented or minimised.

For example:

- Food premises that are sited in inappropriate locations (e.g. one that is prone to flooding, or adjacent to a business using toxic chemicals or producing a lot of dust) could increase the likelihood of food becoming contaminated.
- Poorly constructed buildings and equipment may allow pest entry. Contamination may also be caused by water leaks, condensation or poor drainage.
- The use of inappropriate construction materials may result in surfaces that cannot be kept clean, or which deteriorate and shed dirt, dust and other particles onto food.
- Poor layout (e.g. inadequate separation between 'clean' and 'dirty' areas) increases the chances of microbiological cross contamination of food products by food poisoning bacteria, such as Salmonella.
- Flow lines for food in relation to waste, people etc. must ensure they do not increase risk of cross contamination.
- Insufficient space for the operations being carried out or for the quantity of animals/food being handled will produce cramped conditions where cross contamination is likely.
- Badly designed buildings and equipment that can create 'dirt traps' and make cleaning and maintenance difficult, if not impossible, and are a likely source of microbiological contamination.
- Lack of adequate hygiene facilities, such as toilets and hand-washing basins, will prevent staff from following personal hygiene procedures and can lead to product contamination.

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1.2 WHAT ARE THE LEGAL REQUIREMENTS FOR DESIGN & FACILITIES?

1.2.1 WHICH OPERATIONS DOES THE LAW APPLY TO?

Operations	Relevant Sections of 1.2
Red Meat Slaughter (including farmed game)	A-D, F*, G*
White Meat Slaughter (including farmed game)	A-D, F*, H*
Approved Farm Slaughter of poultry and game	[A] –D, E
Wild Game Handling	A-D, F*
Meat Cutting and Production (Meat Products, Mince Meat, Meat Preparations and MSM)	A-D, I
Edible By-Products	A-D, J

Note * Requirements appropriate for dressing if handling only carcasses

1.2.2 WHAT ARE THE OPERATOR'S LEGAL OBLIGATIONS?

A. GENERAL REQUIREMENTS FOR FOOD PREMISES

1. The layout, design, construction, siting and size of food premises are to:
 - a. Permit adequate maintenance, cleaning and/or disinfection, avoid or minimise air-borne contamination, and provide adequate working space to allow for the hygienic performance of all operations;
 - b. be such as to protect against the accumulation of dirt, contact with toxic materials, the shedding of particles into food and the formation of condensation or undesirable mould on surfaces;
 - c. permit good food hygiene practices, including protection against contamination and, in particular, pest control; and
 - d. where necessary, provide suitable temperature-controlled handling and storage conditions of sufficient capacity for maintaining foodstuffs at appropriate temperatures and designed to allow those temperatures to be monitored and, where necessary, recorded.
2. An adequate number of flush lavatories are to be available and connected to an effective drainage system. Lavatories are not to open directly into rooms in which food is handled.

3. An adequate number of washbasins is to be available, suitably located and designated for cleaning hands. Washbasins for cleaning hands are to be provided with hot and cold running water, materials for cleaning hands and for hygienic drying. Where necessary, the facilities for washing food are to be separate from the hand-washing facility.
4. There is to be suitable and sufficient means of natural or mechanical ventilation. Mechanical airflow from a contaminated area to a clean area is to be avoided. Ventilation systems are to be so constructed as to enable filters and other parts requiring cleaning or replacement to be readily accessible.
5. Sanitary conveniences are to have adequate natural or mechanical ventilation.
6. Food premises are to have adequate natural and/or artificial lighting.
7. Drainage facilities are to be adequate for the purpose intended. They are to be designed and constructed to avoid the risk of contamination. Where drainage channels are fully or partially open, they are to be so designed as to ensure that waste does not flow from a contaminated area towards or into a clean area, in particular an area where foods likely to present a high risk to the final consumer are handled.
8. Where necessary, adequate changing facilities for personnel are to be provided.
9. Cleaning agents and disinfectants are not to be stored in areas where food is handled.

852/2004 Annex II Section I Chapter I Food Premises: points 2–10

B. ROOMS

1. ... the design and layout are to permit good food hygiene practices, including protection against contamination between and during operations. In particular:
 - (a) floor surfaces are to be maintained in a sound condition and be easy to clean and, where necessary, to disinfect. This will require the use of impervious, non-absorbent, washable and non-toxic materials unless FBOs can satisfy the competent authority that other materials used are appropriate. Where appropriate, floors are to allow adequate surface drainage;
 - (b) wall surfaces are to be maintained in a sound condition and be easy to clean and, where necessary, to disinfect. This will require the use of impervious, non-absorbent, washable and non-toxic materials and require a smooth surface up to a

height appropriate for the operations unless FBOs can satisfy the competent authority that other materials used are appropriate;

- (c) ceilings (or, where there are no ceilings, the interior surface of the roof) and overhead fixtures are to be constructed and finished so as to prevent the accumulation of dirt and to reduce condensation, the growth of undesirable mould and the shedding of particles;
 - (d) windows and other openings are to be constructed to prevent the accumulation of dirt. Those which can be opened to the outside environment are, where necessary, to be fitted with insect-proof screens which can be easily removed for cleaning. Where open windows would result in contamination, windows are to remain closed and fixed during production;
 - (e) doors are to be easy to clean and, where necessary, to disinfect. This will require the use of smooth and non-absorbent surfaces unless FBOs can satisfy the competent authority that other materials used are appropriate; &
 - (f) 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 and be easy to clean and, where necessary, to disinfect. This will require the use of smooth, washable corrosion-resistant and non-toxic materials, unless FBOs can satisfy the competent authority that other materials used are appropriate.
- 2. Adequate facilities are to be provided, where necessary, for the cleaning, disinfecting and storage of working utensils and equipment. These facilities are to be constructed of corrosion-resistant materials, be easy to clean and have an adequate supply of hot and cold water.
 - 3. Adequate provision is to be made, where necessary, for washing food. Every sink or other such facility provided for the washing of food is to have an adequate supply of hot and/or cold potable water consistent with the requirements of Chapter VII (Water Supply) and be kept clean and, where necessary, disinfected.

852/2004 Annex II Section I Chapter II Rooms: points 1-3

C. EQUIPMENT

- 1. All articles, fittings and equipment with which food comes into contact are to:
 - (a) be so constructed, be of such materials and be kept in such good order, repair

and condition as to minimise any risk of contamination;

- (b) 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 and, where necessary, to be disinfected; and
 - (c) be installed in such a manner as to allow adequate cleaning of the equipment and the surrounding area.
2. Where necessary, equipment is to be fitted with any appropriate control device to guarantee fulfilment of this Regulation's objectives.
 3. Where chemical additives have to be used to prevent corrosion of equipment and containers, they are to be used in accordance with good practice.

852/2004 Annex II Chapter V Equipment: points 1-3

D. FOODSTUFFS

1. 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.
2. Adequate procedures are to be in place to control pests. Adequate procedures are also to be in place to prevent domestic animals from having access to places where food is prepared, handled or stored (or, where the competent authority so permits in special cases, to prevent such access from resulting in contamination).
3. Raw material, ingredients, intermediate products and finished products likely to support the reproduction of pathogenic micro-organisms or the formation of toxins are not to be kept at temperatures that might result in a risk to health. Food businesses manufacturing, handling and wrapping processed foodstuffs are to have suitable rooms; large enough for the separate storage of raw materials from processed material and sufficient separate refrigerated storage.
4. Hazardous and/or inedible substances, including animal feed, are to be stored in separate and secure containers.

852/2004 Annex II Chapter IX Foodstuffs: points 3, 4, 5 & 8

5. Adequate provision is to be made for the storage and disposal of food waste, non-

edible by-products and other refuse. Refuse stores are to be designed and managed in such a way as to enable them to be kept clean and, where necessary, free of animals and pests.

852/2004 Annex II, Chapter VI Food Waste: point 3

6. Wrapping materials are to be stored in such a manner that they are not exposed to a risk of contamination.
7. Wrapping and packaging operations are to be carried out so as to avoid contamination of the products.

852/2004 Annex II Chapter X Wrapping & packaging: points 2-3

E. ON FARM SLAUGHTER OF POULTRY & GAME

1. Food business operators may slaughter farmed ratites and farmed ungulates (even-toed farmed game mammals - Cervidae and Suidae) and bison in exceptional circumstances, at the place of origin with the authorisation of the competent authority, if [the following requirements are complied with].
2. Food business operators may slaughter [delayed eviscerated poultry, geese and ducks reared for foie gras production, and poultry farmed as domestic animals] on the farm only ... in compliance with the following requirements.
3. The [poultry] holding must have facilities for concentrating the birds to allow an ante-mortem inspection of the group to be made. The [farmed game] holding must have procedures for concentrating the animals to allow an ante-mortem inspection of the group to be made;
4. The [poultry] holding must have premises suitable for the hygienic slaughter and further handling of the birds. The [farmed game] holding must have facilities suitable for the slaughter, bleeding and, where ratites are to be plucked, plucking of the animals;
5. Animal welfare requirements must be complied with.
6. In the case of poultry reared for the production of 'foie gras', the uneviscerated birds must be transported immediately and, if necessary, refrigerated, to a slaughterhouse or cutting plant.
7. Delayed eviscerated poultry obtained at the farm of production may be kept for up to

15 days at a temperature of not more than 4 °C. It must then be eviscerated in a slaughterhouse or in a cutting plant.

8. Slaughtered and bled [farmed game] animals are to be transported to the slaughterhouse hygienically and without undue delay. If transport takes more than two hours, the animals are, if necessary, refrigerated. Evisceration may take place on the spot.

853/2004 Annex III Poultry Slaughter on Farm Section II Chapter VI: points 3-5, 8 & 9 / Farmed Game Section III: points 3(e-h) & 4.

F GENERAL REQUIREMENTS FOR SLAUGHTERHOUSES

1. [Slaughterhouses] must have installations that prevent contact between the meat and the floors, walls and fixtures; and
2. have slaughter lines ... designed to allow constant progress of the slaughter process and to avoid cross-contamination between the different parts of the slaughter line. Where more than one slaughter line is operated ... there must be adequate separation of the lines to prevent cross-contamination.
3. ... have facilities for disinfecting tools with hot water supplied at not less than 82 C, or an alternative system having an equivalent effect.
4. The equipment for washing hands used by the staff engaged in handling exposed meat must have taps designed to prevent the spread of contamination.
5. ... lockable facilities for the refrigerated storage of detained meat and separate lockable facilities for the storage of meat declared unfit for human consumption.
6. They must have an adequately equipped lockable facility or, where needed, room, for the exclusive use of the veterinary service.
7. Where establishments are approved for the slaughter of different animal species or for the handling of carcasses of farmed game or wild game, precautions must be taken to prevent contamination by separation in time or space of operations carried out on different species. Separate facilities for the reception and storage of unskinned carcasses of farmed game slaughtered at the farm and for wild game must be available.
8. The provisions of Section I [red meat] apply to the production and placing on the market of meat from even-toed farmed game mammals (Cervidae and Suidae), unless

the competent authority considers them inappropriate.

9. The provisions of Section II [white meat] apply to the production and placing on the market of meat from ratites. However those of Section I [red meat] apply where the competent authority considers them appropriate. Appropriate facilities must be provided, adapted to the size of the animals.

*853/2004 Annex III **Slaughterhouses** Section I Chapter II: points 2d-5, 9 and Chapter IV point 19 and Section II Chapter II: points 2d-5, 7 and Chapter IV point 3 / **Farmed Game** Section III points 1 & 2.*

G. RED MEAT/FARMED GAME SLAUGHTERHOUSE

1. Slaughterhouses must have adequate and hygienic lairage facilities or, climate permitting, waiting pens that are easy to clean and disinfect. These facilities must be equipped for watering the animals and, if necessary, feeding them. The drainage of the wastewater must not compromise food safety.
2. They must also have separate lockable facilities or, climate permitting, pens for sick or suspect animals with separate draining and sited in such a way as to avoid contamination of other animals, unless the competent authority considers that such facilities are unnecessary.
3. The size of the lairage facilities must ensure that the welfare of the animals is respected. Their layout must facilitate ante-mortem inspections, including the identification of the animals or groups of animals.
4. There must be a separate place with appropriate facilities for the cleaning, washing and disinfection of means of transport for livestock. However, slaughterhouses need not have these places and facilities if the competent authority so permits and official authorised places and facilities exist nearby.

*853/2004 Annex III **Slaughterhouses** Section I Chapter II: points 1 & 6*

5. They must have lockable facilities reserved for the slaughter of sick and suspect animals. This is not essential if this slaughter takes place in other establishments authorised by the competent authority for this purpose, or at the end of the normal slaughter period.

*853/2004 Annex III **Slaughterhouses** Section I Chapter II: point 7 and **Farmed Game** Section III*

point 1

6. To avoid contaminating meat, [slaughterhouses] must:
 - (a) Have a sufficient number of rooms, appropriate to the operations being carried out;
 - (b) Have a separate room for the emptying and cleaning of stomachs and intestines, unless the competent authority authorises the separation in time of these operations on a case-by-case basis;
 - (c) Ensure separation in space or time of the following operations:
 - (i) stunning and bleeding;
 - (ii) in the case of porcine animals, scalding, depilation, scraping and singeing;
 - (iii) evisceration and further dressing;
 - (iv) handling clean guts and tripe;
 - (v) preparation and cleaning of other offal, particularly the handling of skinned heads if it does not take place at the slaughter line;
 - (vi) packaging offal; and
 - (vii) dispatching meat;
7. If manure or digestive tract content is stored in the slaughterhouse, there must be a special area or place for that purpose.

*853/2004 Annex III **Slaughterhouses**: Section I Chapter II points 2 & 8*

8. Exposed meat must be stored ... separately from packaged meat, unless stored ... at different times or in such a way that the packaging material and the manner of storage ... cannot be a source of contamination for the meat.

*853/2004 Annex III **Slaughterhouses** Section I Chapter VII point 5*

H. WHITE MEAT/FARMED GAME SLAUGHTERHOUSE

1. [Slaughterhouses] must have a room or covered space for the reception of the animals and for their inspection before slaughter.
2. To avoid contaminating meat, [slaughterhouses] must:
 - (a) Have a sufficient number of rooms, appropriate to the operations being carried out;
 - (b) Have a separate room for evisceration and further dressing, including the addition

of seasonings to whole poultry carcasses, unless the competent authority authorises separation in time of these operations ... on a case-by-case basis;

(c) Ensure separation in space or time of the following operations:

- (i) stunning and bleeding;
- (ii) plucking or skinning, and any scalding; and
- (iii) dispatching meat

3. There must be a separate place with appropriate facilities for the cleaning, washing and disinfection of (a) transport equipment such as crates; and (b) means of transport. These places and facilities are not compulsory for (b) if officially authorised places and facilities exist nearby.
4. The provisions of Section II [white meat] apply to the production and placing on the market of meat from ratites. However, those of Section I [red meat] apply where the competent authority considers them appropriate. Appropriate facilities must be provided, adapted to the size of the animals.

853/2004 Annex III **Slaughterhouses** Section II Chapter II points 1, 2a-c, 6 / **Farmed Game** Section III point 2

I. MEAT CUTTING AND PRODUCTION ESTABLISHMENTS

1. [Premises] are constructed so as to avoid contamination of meat and meat products, in particular by: allowing constant progress of the operations; or ensuring separation between the different production batches;
2. have rooms for the separate storage of packaged meat and exposed meat and products, unless stored at different times or in such a way that the packaging material and the manner of storage cannot be a source of the contamination for the meat or products;
3. have rooms equipped to ensure compliance with the temperature requirements laid down in Chapter III;
4. have equipment for washing hands used by staff handling exposed meat and products with taps designed to prevent the spread of contamination; &
5. have facilities for disinfecting tools with hot water supplied at not less than 82°C, or an alternative system having an equivalent effect.

6. If the following operations are undertaken in a [poultry] cutting plant:

(a) the evisceration of geese and ducks reared for the production of «foie gras», which have been stunned, bled and plucked on the fattening farm; or

(b) the evisceration of delayed eviscerated poultry,

...operators must ensure that separate rooms are available for that purpose.

853/2004 Annex III **Cutting** Section I Chapter III and Section II Chapter III: / **Farmed Game**: Section III points 1 and 2; / **Wild Game** Section IV Chapter II point 9 and Chapter III point 7 (indirectly) **Production Establishments (Minced meat, Meat preparations, MSM)** Section V Chapter I / **Meat Products** Section VI 2/

J. EDIBLE BY-PRODUCTS

(REQUIREMENTS APPLICABLE TO ESTABLISHMENTS COLLECTING OR PROCESSING RAW MATERIALS)

1. Centres for the collection of raw materials and further transport to processing establishments must be equipped with facilities for the storage of raw materials at a temperature of not more than 7°C.

2. Each processing establishment must have:

(a) refrigeration facilities;

(b) a dispatch room, unless the establishment dispatches rendered animal fat only in tankers; and

(c) if appropriate, suitable equipment for the preparation of products consisting of rendered animal fats mixed with other foodstuffs and/or seasonings.

3. However, the refrigeration facilities required under points 1 and 2(a) are not necessary if the arrangements for the supply of raw materials ensure that they are never stored or transported without active refrigeration otherwise than transported, and stored until rendering, in hygienic conditions and at an internal temperature of not more than 7°C. However, raw materials may be stored and transported without active refrigeration if rendered within 12 hours after the day on which they were obtained.

853/2004 Annex III **Rendered Animal Fats and Greaves** Section XII Chapter I

4. Collection centres and tanneries may also supply raw material for the production of gelatine and/or collagen intended for human consumption if ... authorise[d] and they

fulfil the following requirements

(a) They must have storage rooms with hard floors and smooth walls that are easy to clean and disinfect, and where appropriate, provided with refrigeration facilities.

5. If raw material not in conformity with this chapter is stored and/or processed in these premises, it must be segregated from raw material in conformity with this chapter throughout the period of receipt, storage, processing and dispatch.

*853/2004 Annex III **Gelatine** Section XIV Chapter I & **Collagen** Section XV Chapter I*

1.2.3 WHAT ARE THE OFFICIAL CONTROL REQUIREMENTS?

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

854/2004 Article 4 point 4b

1.3 HOW MAY OPERATORS DEMONSTRATE COMPLIANCE?

Food Business Operators can demonstrate compliance with their legal obligations for location, design, layout and construction of food premises and the choice of fixtures, fittings and equipment on an ongoing basis by providing evidence, including appropriate documentation, that:

- Premises are sited, designed, laid out, constructed and equipped so that:
 - The location is appropriate for operating a food business.
 - There is sufficient space for food production and associated operations (equipment, washing, staff changing) to be carried out hygienically.
 - Build up of dirt, contamination by particles (e.g. rust, paint) and condensation are minimised by having floors, walls, ceilings, doors and other surfaces in rooms where foodstuffs are prepared, that are made of appropriate, easily cleanable materials. Similar conditions must prevail in rooms or areas through which foodstuffs are moved or where they are stored and in rooms where materials that may contact meat are stored or handled.
 - Pest control, maintenance, cleaning and disinfection can be effectively carried out.
 - There is sufficient temperature controlled handling and storage capacity to allow temperature control requirements to be met and monitored.
 - There are adequate facilities for cleaning and sanitising tools and equipment.
 - Where food is washed, there are sinks or other washing equipment that have adequate supplies of hot and/or cold potable water.
- Premises are equipped with:
 - Sufficient flush lavatories physically separated from food handling areas.
 - Sufficient and suitably located washbasins, with hot and cold water, hand cleaning and drying facilities.
 - Efficient drainage and ventilation that does not introduce airborne contamination to food handling areas.
 - Adequate lighting for the operations being carried out.
 - Adequate staff changing facility.
 - Separate storage facilities for cleaning agents and disinfectants.
- Items that may come into contact with food have been designed and constructed so that:
 - The risk of food contamination is minimised.

- Adequate cleaning and disinfection of the equipment can be carried out.
- The operation of the equipment can be controlled so that food safety and food hygiene requirements are always met (e.g. controlled temperature equipment).
- In addition, premises slaughtering and/or dressing animals are constructed, laid out and equipped so that:
 - Facilities for handling, inspecting, slaughtering animals and dressing carcasses are adequate.
 - Livestock transport vehicles/equipment can be cleaned and disinfected.
 - Meat is protected from contamination by adequate separation of processing operations, e.g. clean and dirty operations.
 - Meat does not come into contact with floors, walls and fixtures
 - Tools can be disinfected effectively.
 - Hand washing facilities do not spread contamination.
 - Unfit meat can be effectively separated from fit meat and stored securely
 - Adequate facilities are available for the veterinary service.
- Meat cutting and production establishments are constructed, laid out and equipped so that:
 - Meat is protected from contamination during processing.
 - Packaged and exposed meats are stored so that cross contamination cannot occur.
 - Cutting rooms meet temperature control requirements.
 - Tools, equipment and protective clothing can be sanitised effectively.
 - Hand washing facilities do not spread contamination.
- Arrangements are in place to maintain and monitor the adequacy of the design and facilities by:
 - Nominating an individual (who may be the operator) to take responsibility for the design and facilities used by the business.
 - Monitoring the design, initial construction, rebuilding, refurbishment, alteration, fitting out, or equipping of food handling premises.
 - Taking effective corrective action if there is evidence of faults in the design or construction of buildings, fixtures and fittings, or equipment used by the business.

1.3.1 GENERAL INFORMATION

1. Approval is required for all operating meat plants unless specifically exempt from the Regulations. Operations may need to be discontinued or special arrangements to be made to protect food from possible contamination if building work is to be carried out while operating. **For further information** about approval procedures for new premises see [PART ONE 7. Approvals].
2. The siting, design, layout, and construction of premises and of equipment used in the production and storage of food products needs to meet certain standards to achieve food safety. Similar food safety standards apply to the exterior of the premises, animal handling areas, refuse stores, staff changing facilities, wrapping and packaging stores etc.
3. Technical advice on the design and construction of new food premises or the rebuilding, refurbishment and alteration of existing premises should be obtained from suitably qualified and competent professionals. Such work may require consent from the relevant environmental and planning authorities. Food Standards Agency officials cannot give advice on technical matters but can advise on the legal food safety and hygiene requirements to be met.
4. When employing professional advisers or outside contractors for building work or the installation of equipment, fixtures and fittings, it is advisable to use businesses or individuals that understand the operational and hygiene requirements of food establishments. They also need knowledge of other legislation (e.g. animal welfare, health and safety) and building regulations that will influence the design, layout and facilities. Inexperienced contractors may carry out work that is sub-standard or does not meet the requirements, which then has to be remedied or upgraded at considerable expense.
5. As well as specialist companies there are many sources of information and guidance available, including:
 - ***Meat Plant Design and Construction: Guideline Manual on the Buildings and Engineering Design Requirements for the Operation of Meat Plants***, which gives technical information on materials, design points, layout etc.: **For further information** contact the Meat & Livestock Commission, PO Box 44, Snowdon Drive, Milton Keynes MK6 1AX.
 - ***Meat Hygiene*** 10th edition (1999) (ISBN 0 7020 2258 6) by J F Gracey, D S Collins, R J Huey published by W B Saunders Company Ltd.

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- ***Livestock Handling and Transport*** (ISBN 0 85199 409 1) edited by Temple Grandin, published by CAB Wallingford, Oxon OX10 8DE, Tel: 44 (0) 1491 832111 Fax: 44 (0) 1491 829292 E-mail: orders@cabi.org International
- Guidance on slaughter facilities and equipment
Humane Slaughter Association, The Old School, Brewhouse Hill, Wheathampstead, Herts, AL4 8AN UK, Tel: +44 (0) 1582 831919 Fax: +44 (0) 1582 831414
- Organisations such as the European Hygienic Engineering and Design Group (EHEDG) (www.ehedg.org) produce guidance for hygienic design of food processing equipment.

1.3.2 ALL FOOD PREMISES

GUIDE TO COMPLIANCE	ADVICE FOR OPERATORS
Location	Location
<ul style="list-style-type: none"> Food premises are sited in locations that allow all hygiene procedures to be carried out effectively and are not at risk from potential threats to food safety. <p>A1a-c</p>	<p><i>For new premises, consider factors such as:</i></p> <ul style="list-style-type: none"> <i>Suitability of the ground for building;</i> <i>Availability of services, especially power, drainage and potable water,</i> <i>Access for transport vehicles and for staff;</i> <i>Need to dispose of animal by products;</i> <i>Proximity to residential areas.</i> <i>Prevailing wind</i> <p><i>Avoid locations close to:</i></p> <ul style="list-style-type: none"> <i>Environmentally polluted areas;</i> <i>Industrial activities that might present a risk of contamination (e.g. chemical production)</i> <i>Areas prone to flooding.</i>
Access/Security	Access/Security
<ul style="list-style-type: none"> Domestic animals are denied access to the site (except working dogs where permitted by the CA). <p>D2</p> <ul style="list-style-type: none"> Entrance to food handling areas is denied to persons suffering from various complaints – see Chapter 7 (Personal Hygiene). <p>852/2004 Annex II, Chapter 8(2)</p>	<p><i>Mark boundaries with a substantial perimeter fence so that access to the site can be controlled.</i></p>
Site Plan	Site Plan
<ul style="list-style-type: none"> An accurate, up to date and dated plan is available, showing the entire premises, boundaries, routing of vehicles, layout of all rooms, corridors, chillers, stores, access points, staff 	<p><i>Retain a copy of the site plan(s) provided when obtaining official approval of the meat establishment.</i></p> <p><i>Changes to approved premises may be such as to require further approval and submission of revised plans incorporating the changes. See PART ONE</i></p>

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<p>amenities, major equipment, work stations, water distribution, wash basins, lairages, loading /unloading points, vehicle washes etc.</p> <p>Approval Requirement</p>	<p>Chapter 7 (Approvals).</p>
<p>Design, Layout and Construction</p> <ul style="list-style-type: none"> The premises are designed, laid out, and constructed so that: <ul style="list-style-type: none"> There is sufficient space to allow good food hygiene practices to be followed in all operations, including: <p>A1a</p> <ul style="list-style-type: none"> There is sufficient temperature controlled handling and storage capacity - see below. <p>A1d, D3</p> <ul style="list-style-type: none"> Adequate washing, toilet and changing facilities for staff as well as lighting, drainage and ventilation – see topics below. <p>A2, A3, A4, A5, A6, A7, A8</p> 	<p>Design, Layout and Construction</p> <p><i>Avoid carrying out too many activities in one area or trying to handle too great a quantity of animals/food for the available space and facilities. Cramped conditions will compromise the ability to carry out good hygienic practices and increase the risk of spreading contamination and/or cross-contamination.</i></p> <p><i>In designing or reorganising the premises, consider factors such as:</i></p> <ul style="list-style-type: none"> <i>Expected daily throughput of animals (of each species); carcasses, meat; and product and possible future expansion.</i> <i>Need for sufficient space for hygienic processing and disposal of waste.</i> <i>Provision for staff facilities.</i> <i>The turning circles of transport vehicles.</i> <p><i>Good hygienic practice requires that all operations are organised to minimise the opportunity for contamination to spread or to be introduced. This means a spatial separation between ‘clean’ and ‘dirty’ operations in all but the smallest premises, where separation in time is feasible with interim cleaning and disinfection. (See also premise-specific sections below).</i></p> <p>Loading and Unloading Operations - prevent contamination of meat from fumes, dust, rain, pests, birds, leaves etc. during loading and unloading between premises and vehicles. This may be achieved by installing a vehicle docking system.</p>

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	<i>Where this is not possible (e.g. for planning reasons) a canopy or awning may be sufficient.</i>
Storage	Storage
<ul style="list-style-type: none"> Storage of cleaning agents and disinfectants and facilities for cleaning equipment and tools and for washing food – see below. <p>A9, B2, B3</p> <ul style="list-style-type: none"> Separate storage of raw materials from processed materials – see Chapter 8 (Raw Materials). <p>D3</p> <ul style="list-style-type: none"> Storage of hazardous and/or inedible substances in separate and secured containers and adequate provision for storage and disposal of food waste, non edible by products and other refuse – see Chapter 10 (Waste Management) <p>D4, D5</p> <ul style="list-style-type: none"> At all stages of food production, processing, wrapping and packaging and distribution, all operations are protected from contamination (e.g. airborne dirt and dust, rain, accumulation of dirt, contact with toxic materials, shedding of particles (e.g. paint, rust) formation of condensation or mould) <p>A1c, B1, C1a, D1, D7</p> <ul style="list-style-type: none"> There is adequate control of pests – see Chapter 5 (Pest Control). <p>A1c, D2, D5</p> <ul style="list-style-type: none"> There is sufficient access to areas and equipment that require maintenance – 	<p><i>In designing or reorganising the premises, consider factors such as:</i></p> <ul style="list-style-type: none"> <i>Provision of adequate number of processing and storage rooms</i> <i>Requirements for cleaning and maintenance.</i>

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<p>see Equipment Section 1.3.4 and Chapter 3 (Maintenance).</p> <p>A1a</p> <ul style="list-style-type: none"> The premises and, in particular, the floors, walls, ceilings, windows and other openings, doors and surfaces in rooms where foodstuffs are handled, and equipment, can be easily cleaned, disinfected and maintained - see 1.3.3 (Surfaces) below and Chapters 3 (Maintenance) and 4 (Cleaning). <p>A1a, B1,</p>	
Temperature controls	Temperature controls
<ul style="list-style-type: none"> Temperature-controlled handling capacity is able to ensure that temperature requirements for food are always met. <p>A1d</p> <ul style="list-style-type: none"> Temperature-controlled storage capacity is able to ensure that temperature requirements for food are always met. <p>A1d</p> <ul style="list-style-type: none"> Food business manufacturers handling and wrapping processed foodstuffs have sufficient separate refrigerated storage for raw materials and processed materials. <p>D3</p>	<p><i>Ensure facilities are capable of maintaining the mandatory temperature requirements at all times. Particular thought should be given to how to meet this requirement in periods of high throughput or high ambient temperatures. See 1.3.4 (Equipment) and Chapter 13 (Temperature Control).</i></p>
Water Supply	Water Supply
<ul style="list-style-type: none"> There is an adequate potable water supply. <p>852/2004 Chapter VII point 1</p>	<p>See Chapter 2 (Water Supply).</p>

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<p>Toilets</p> <ul style="list-style-type: none"> Sufficient flush toilets for the number of employees are available and do not open directly into food-handling areas. <p>A2</p>	<p>Toilets</p> <p><i>The number of flush toilets required is regulated by the Workplace (Health Safety and Welfare) Regulations 1992 in GB and the Workplace (Health Safety and Welfare) Regulations (Northern Ireland) 1993 in NI.</i></p> <p><i>Toilets should be in the same building as the food operation. Exceptionally, where staff numbers are very small and the premise is next to a house, the house toilet may be sufficient. If possible, provide toilets near the lairage so that vehicle drivers do not have to enter the main premises.</i></p> <p><i>Allow space near the toilets so that staff can remove and hang up their protective clothing before using the toilet.</i></p> <p><i>Septic tanks need to be emptied when necessary and before they fill up. Chemical toilets are unacceptable.</i></p>
<p>Hand washing basins</p> <ul style="list-style-type: none"> There are sufficient washbasins for the number of employees at suitable locations. See 1.3.4 (Equipment) for facilities for food washing which are to be separate from hand washing facilities. <p>A3</p> <ul style="list-style-type: none"> Washbasins have adequate supplies of hot and cold water. <p>A3</p> <ul style="list-style-type: none"> Washbasins have adequate supplies of soap or detergent, and hand drying facilities - see Chapter 7 (Personal Hygiene) <p>A3</p>	<p>Hand washing basins</p> <p><i>The number of hand washing facilities required to maintain good hygiene depends on the number of staff and on the nature and location of the operations being carried out.</i></p> <p><i>Washbasins should be close to toilets at the entry points for food-handling areas, and close to workstations.</i></p> <p><i>Adequate water pressure is required for effective washing. Hot and cold water can be supplied through separate taps, but a mixed supply is preferable.</i></p> <p><i>Water should be at a suitable and comfortable temperature (above 45° C is uncomfortably hot for many people) so that staff are encouraged to use the facilities provided.</i></p>

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Ventilation	Ventilation
<ul style="list-style-type: none"> There is sufficient ventilation to prevent condensation on surfaces. A4 Toilets are adequately ventilated to remove odours. A5 Where screens or filters are fitted to ventilation systems, they are situated and fitted so that they can easily be replaced or cleaned when necessary. A4 Airflow from mechanical systems passes from clean towards dirty areas, to minimise the spread of contamination in dust or water droplets and odours. A4 	<p><i>Adequate ventilation is important as it prevents the growth of moulds and drops of water that may contain particles of dirt and lead to contamination.</i></p> <p><i>The ventilation system may be natural or mechanical. Natural ventilation by opening windows (fitted with fly screens) is unlikely to be sufficient except in very small premises. Mechanical ventilation systems may be simple wall or window mounted fans, steam extractors, or more sophisticated ducted systems. They are best situated near sources of heat, steam, and odours to maximise their effectiveness. Changing facilities should also be adequately ventilated to remove odours.</i></p> <p><i>The positioning of air inlets for food handling areas is important so that dust or fumes are not drawn in. Fit cleanable filters to air inlets for food handling areas.</i></p>
Lighting	Lighting
<ul style="list-style-type: none"> Adequate lighting is fitted throughout the premises so that hygiene procedures can be carried out effectively. Suitable conditions are provided for ante- and post-mortem. A6, 853/2004 Annex III Section I Chapter IV point 5 & 12, Section 2 Chapter IV points 2 & 6 Lighting sources are protected so that any damage cannot cause contamination of food. A1b & B1c 	<p><i>In practice adequate lighting means at least:</i></p> <ul style="list-style-type: none"> 540 lux at inspection points 220 lux in workrooms 110 lux in other areas <p><i>Lighting should not distort colours so that any discoloration of meat can be identified easily.</i></p> <p><i>High intensity lighting is recommended except where, for poultry welfare reasons, blue lighting is used in hanging on bays, although here too lighting needs to allow adequate inspections to be performed</i></p> <p><i>Enclose fluorescent tubes or light bulbs in waterproof and shatterproof covers for ease of cleaning and to minimise the risk of contamination of food by glass fragments if there are breakages.</i></p>

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Drainage	Drainage
<ul style="list-style-type: none"> The drainage system is capable of disposing of waste water and effluent effectively. In addition it has sufficient capacity to cope with the maximum quantities produced at any time. <p>A7</p> <ul style="list-style-type: none"> In wet areas the floors allow for adequate drainage. <p>B1a, A7</p> <ul style="list-style-type: none"> Drainage facilities should include the protection against contamination. <p>A1c</p> <ul style="list-style-type: none"> Where drainage channels are fully or partly open they are to be designed to ensure that waste cannot flow from a contaminated area towards or into a clean area, in particular an area where foods likely to present a high risk to the final consumer are handled. <p>A7</p>	<p><i>Drainage systems need to be able to handle material such as fat and blood as well as water. Connect wastes from wash basins, sterilisers, other washing facilities, production room cleaning facilities, carcass and offal showers and, refrigeration equipment to drains so that water does not flow freely on floors. Effluent in drains should flow away from the product flow.</i></p> <p><i>Provide floor drainage in wet areas with enough capacity to prevent overflow. Lay floors so that waste water and effluent is directed down slopes into drains and pooling does not occur.</i></p> <p><i>Rodent screens should be fitted to drains that open to the outside of the building to prevent the entry of pests.</i></p> <p><i>Open drain channels should have removable gratings to facilitate cleaning and maintenance.</i></p> <p>Traps - protect the system by effective water traps or sediment traps that are easy to clean and do not allow foul air or effluent to enter food-handling areas.</p> <ul style="list-style-type: none"> <i>Water traps deal with smells and assist with rodent control.</i> <i>Sediment traps are buckets to prevent excess solid materials entering the lower drainage system where they can result in blockage or smell creation and cannot easily be accessed for cleaning. Sediment buckets should be easily removable for cleaning</i> <p>Manholes - avoid the use of internal drain inspection chambers (manholes), but if this is not possible ensure they are doubly sealed and secured so that overflow cannot occur.</p>

<p>Changing facilities</p> <ul style="list-style-type: none"> For staff that are required to wear protective clothing, a changing area of sufficient size is provided in the same building as the food operation. <p>A8</p> <ul style="list-style-type: none"> Adequate provision is made for hygienic storage of clean protective clothing and disposal of dirty clothing - see Chapter 7 (Personal Hygiene) <p>A1c</p>	<p>Changing facilities</p> <p><i>Provide enough lockers and seating so that staff can store outdoor clothing and belongings and can change clothing and footwear without getting protective clothing dirty. The use of changing facilities as a mess room, a canteen or a storage room is unacceptable.</i></p> <p><i>Changing facilities should be properly separated from the toilets, access to the food handling area from the changing room should be through a lobby provided with washing facilities for hands, knives, boots and aprons and hangers for aprons.</i></p> <p><i>The number of operatives and the nature of the operation should determine the facilities provided in the lobby. Some will have a simple boot wash and hand wash facility while others will include 'wet' hygiene area for apron washes and apron hanging facilities.</i></p>
<p>Storage for cleaning chemicals</p> <ul style="list-style-type: none"> Cleaning agents and disinfectants are stored away from food handling areas so that chemicals do not contaminate food. <p>A9</p>	<p>Storage for cleaning chemicals</p> <p><i>Keep cleaning chemicals and utensils in a separate room or, exceptionally in small premises, in a cupboard that can be locked and is used only for this purpose.</i></p>

1.3.3 ALL FOOD PREMISES (INTERIOR SURFACES)

GUIDE TO COMPLIANCE	ADVICE FOR OPERATOR
<p>Floors</p> <ul style="list-style-type: none"> Floors are made of non-absorbent, impervious and non-toxic materials that are easy to clean, disinfect and maintain. See also drainage section at 1.3.2 above. 	<p>Floors</p> <p><i>Floor surfaces should be non-slip without compromising hygiene, especially in wet areas. Suitable materials include sealed concrete, epoxy resin. Avoid materials that require high levels of maintenance or are not durable. Vinyl is acceptable</i></p>

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<p>B1a</p>	<p><i>in changing rooms but not in production areas. Wood is not a suitable flooring material in food-handling areas. Floors with grouting are likely to require more frequent repair. Such surfaces will increase costs over time and may cause product contamination.</i></p> <p>Junctions – junctions between floors and walls should be smooth, sealed (using an impervious mastic) and rounded to facilitate cleaning. Integral coving is preferred.</p>
<p>Walls</p>	<p>Walls</p>
<ul style="list-style-type: none"> Wall surfaces are made of non-absorbent, impervious and non-toxic materials that are easy to clean, disinfect and maintain. <p>B1b</p> <ul style="list-style-type: none"> Smooth wall surfaces extend to a suitable height above the working area. <p>B1b</p>	<p><i>Suitable wall surfaces include ceramic tiles, plaster or rendering coated with washable paint (not recommended for walls that are close to work surfaces or equipment), plastic coated board (not recommended for wet areas or where impact damage may occur), plastic cladding, stainless steel sheet, epoxy resin coating and insulated panelling.</i></p> <p><i>Avoid materials that require high levels of maintenance or are not durable. Such surfaces will increase costs over time and may cause product contamination (e.g. from paint, rust, peeling laminate surfaces).</i></p> <p>Colour – ideally wall surfaces should be light coloured to reflect light and so that dirt can be seen easily</p> <p>Height - extend smooth wall surfaces to ceiling height where possible but, as a minimum, extend to well above the level that food is either being worked on or stored to avoid exposed food being next to hard to clean surfaces.</p>
<p>Ceilings</p>	<p>Ceilings</p>
<ul style="list-style-type: none"> Ceilings or interior surfaces of the roof and overhead roof fixtures are made 	<p><i>Suitable ceiling surfaces include plastic cladding and sealed concrete. Polystyrene or acoustic ceiling tiles</i></p>

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<p>and finished so that they prevent the accumulation of dirt, and minimise condensation, growth of mould and shedding of particles.</p> <p>B1c, A1b</p>	<p><i>are not suitable for ceilings in food handling areas. Corrugated roofs and exposed asbestos surfaces are difficult to clean and are not suitable surfaces. However, where such surfaces are already in place and remain intact, no action need be taken. But, where these surfaces are damaged the particles may pose a risk from inhalation and contamination of food. As a minimum, arrangements need to be made to replace or cover damaged areas.</i></p> <p><i>Avoid materials that require high levels of maintenance or are not durable. Such surfaces will increase costs over time and may cause product contamination (e.g. from paint, rust, peeling laminate surfaces).</i></p> <p>Overhead Fixtures - <i>if overhead fixtures and services in food-handling areas are hard to clean they may be boxed in. Fitting a suspended ceiling made of a washable material (e.g. plastic cladding) with overhead fixtures, pipes and other services above it may be an alternative but may create other problems such as condensation, which may need extra ventilation, and a space for pests.</i></p> <p>Junctions – <i>junctions between the ceiling and walls should be smooth, sealed [using an impervious mastic] and rounded to facilitate cleaning. Integral coving is preferred.</i></p> <p>Colour - <i>ideally ceilings should be light coloured to reflect light and so that dirt can be seen more easily.</i></p>
<p>Windows</p> <ul style="list-style-type: none"> Windows (and other openings such as skylights) are designed and fitted to prevent the accumulation of dirt. 	<p>Windows</p> <p><i>Avoid windows in workrooms where possible as they can compromise temperature control. Where windows are not needed for ventilation, it is preferable that they cannot be opened.</i></p>

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<ul style="list-style-type: none"> Where open windows would result in contamination, they should remain closed and fixed during production. Removable insect-proof screens are fitted where necessary to prevent pest entry – see <i>Chapter 5 (Pest Control)</i>. <p>B1d</p>	
Doors	Doors
<ul style="list-style-type: none"> Doors and door furniture have smooth non-absorbent surfaces that can be easily cleaned and disinfected. <p>B1e, B1f</p> <ul style="list-style-type: none"> Openings (such as external doors) are designed and fitted to prevent the accumulation of dirt. <p>B1d</p>	<p><i>Suitable surfaces include steel (stainless or coated) and plastic panelling. Wooden doors are not recommended as the bottoms rot from exposure to water and are easily damaged by fork lift trucks, for example. If used they need to be clad or sealed and waterproofed e.g. sealed with good quality gloss paint.</i></p> <p>Door furniture - handles and push plates also need to be smooth, washable and resistant to cleaning chemicals – see surfaces below.</p> <p>Door openings – these need to be wide enough to allow the easy movement of staff, equipment and vehicles.</p> <p>External doors – these need to be tight fitting (i.e. light is not visible around the frame when closed). Where doors are in frequent use (e.g. loading bays) additional measures (e.g. overlapping plastic strips) may help to minimise pest activity.</p>
Other interior surfaces	Other interior surfaces
<ul style="list-style-type: none"> Surfaces in food handling areas are made of smooth, washable, corrosion-resistant and non-toxic materials. They are easy to clean, disinfect and maintain. 	<p><i>Working surfaces need to be smooth and continuous, avoiding crevices, pits and hard-to-clean corners or joints. Suitable surfaces include stainless steel and food-grade plastics. Galvanised metal is prone to corrosion, however</i></p>

B1f	<p>where such surfaces are already in place and remain uncorroded, no action need be taken.</p> <p>Wood is generally not acceptable as a food contact surface as it is difficult to clean and disinfect and may shed splinters, but may be acceptable for cutting blocks as long as the surface is smooth and well maintained.</p>
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1.3.4 EQUIPMENT

GUIDE TO COMPLIANCE	ADVICE FOR OPERATOR
Design	Design
<ul style="list-style-type: none"> All articles, fittings and equipment are designed and constructed so as to minimise the risk of contaminating food. <p>C1a</p> <ul style="list-style-type: none"> In food-handling areas equipment surfaces are smooth, washable, corrosion-resistant, non-toxic, and are easy to clean, disinfect and maintain. (Where chemical additives have to be used to prevent corrosion of equipment and containers, this is done following good chemical practice.) <p>C1b, C3</p>	<p>Consider the ease of cleaning and maintenance as well as the operational performance of equipment before purchase and installation, in particular the:</p> <ul style="list-style-type: none"> Use of suitable materials, such as stainless steel, or food grade plastics. Galvanised metal is prone to corrosion, however where such surfaces are already in place and remain uncorroded, no action need be taken. Wood is not generally acceptable. Smoothness of surface and joint finishes - minimise ridges or crevices where dirt can be trapped. Where possible, joints should be continuously welded and sharp edges, screws and rivets should be avoided where possible. Rounding off of corners within equipment to aid cleaning. Location of bearings away from food contact surfaces so that lubricants do not contaminate product. Presence of internal voids that cannot be cleaned and where food material can accumulate.

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	<ul style="list-style-type: none"> Surfaces allow water and cleaning residues to drain away quickly. The availability of 'clean-in-place' systems.
Position	Position
<ul style="list-style-type: none"> All articles, fittings and equipment that come into contact with food is installed so that all parts of the equipment and its surroundings are accessible for adequate cleaning. <p>C1c</p>	<p>Avoid installing equipment, against walls or in corners where it is inaccessible and therefore uncleanable. Except where the nature of the machinery prevents it, install equipment so that the floor below can be easily cleaned.</p>
Facilities for cleaning tools and utensils	Facilities for cleaning tools and utensils
<ul style="list-style-type: none"> There are facilities with hot and cold water for cleaning and disinfecting working utensils and equipment. The facilities are constructed of corrosion-resistant materials and are easy-to-clean – see Chapter 4 (Cleaning). <p>B2</p> <ul style="list-style-type: none"> There are storage facilities for working utensils and equipment. <p>B2</p>	<p>Facilities for cleaning, disinfecting and drying tools and utensils will be necessary in most food-handling areas. This may be a sink (preferably double bowled) or a machine depending on the type of tools in use. Stainless steel is a suitable material. Hot water baths are not recommended as the water within them rapidly becomes soiled. Large tools, such as saws are best sterilised in a spray cabinet equipped with a steam extractor.</p> <p>Position - to encourage regular use, place cleaning facilities next to food handling areas providing that measures are in place to avoid risk of cross contamination (steam). Arrange a 'one way' system to avoid contaminating clean tools with dirty ones.</p> <p>Storage - store cleaned tools on a rack, positioned so those tools can dry quickly without being splashed or coming into contact with contaminated surfaces.</p>
Facilities for Food Washing	Facilities for Food Washing
<ul style="list-style-type: none"> Where food is washed (e.g. bovine tongue and other edible offals), there is suitable equipment supplied with a 	<p>Washing facilities may simply be a sink supplied with a continuous flow of potable running water (i.e. not occasionally filled and emptied), or may be</p>

continuous flow of potable water. The equipment can be cleaned and disinfected. B3	<i>customised equipment designed for the purpose (e.g. a rotating tongue washer). The use of static tanks is not acceptable.</i>
Temperature Control Equipment	Temperature Control Equipment
<ul style="list-style-type: none"> Where the performance of equipment is essential to ensure that food safety requirements are met (e.g. chillers, freezers, cooker units) appropriate control devices are fitted to guarantee that performance. C2 <ul style="list-style-type: none"> Temperature-controlled equipment has the capacity to allow temperatures to be monitored and, if necessary, recorded – see Chapter 13 (Temperature Controls). A1d	<p><i>Use equipment with temperature monitoring devices where mandatory temperature requirements are set.</i></p> <p><i>Automatic monitoring/recording device can give warnings when temperature limits are in danger of being breached. Alternatively, written records of temperature monitoring are to be kept.</i></p>

1.3.5 ON FARM SLAUGHTER OF POULTRY AND GAME

GUIDE TO COMPLIANCE	ADVICE FOR OPERATOR
Poultry Holdings	Poultry Holdings
<ul style="list-style-type: none"> Poultry holdings have facilities for concentrating the birds to allow an ante-mortem inspection of the group to be made. Animal welfare requirements are met. E3, E5 <ul style="list-style-type: none"> Poultry holdings have premises suitable for the hygienic slaughter and handling of the birds. There are refrigeration facilities for 	<p>For further information on facilities for animals awaiting slaughter see <i>PART FOUR Chapter x (Animal Welfare)</i>.</p> <p><i>Provide adequate lighting, space and access to enable ante mortem inspection to be properly undertaken.</i></p> <p><i>Rooms used for slaughter and storage should meet the same hygiene requirements as the equivalent areas in a slaughterhouse – see Section 1.3 (Interior surfaces).</i></p>

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<p>storage of up to 15 days of 'delayed eviscerated poultry at no more than 4°C', and if necessary, there are refrigeration facilities prior to transport of 'uneviscerated 'foie gras' birds to a slaughterhouse or cutting plant.</p> <p>E4, E6, E7</p>	
Farmed Game Holdings	Farmed Game Holdings
<ul style="list-style-type: none"> Farmed game holdings have procedures for concentrating the birds/animals to allow an ante-mortem inspection of the group to be made. Animal welfare requirements are met. <p>E3</p> <ul style="list-style-type: none"> Farmed game holdings have facilities suitable for the slaughter, bleeding and, where ratites are to be plucked, plucking of the animals. If necessary there are refrigeration facilities prior to transport of carcasses to the slaughterhouse. <p>E3, E8</p>	<p>For further information on facilities for animals awaiting slaughter see <i>PART FOUR Chapter x (Animal Welfare)</i>.</p> <p><i>Provide adequate lighting, space and access to enable ante mortem inspection to be properly undertaken.</i></p> <p><i>Rooms used for slaughter and storage should meet the same hygiene requirements as the equivalent areas in a slaughterhouse – see relevant sections.</i></p> <p><i>Farmed game may be shot in the field and bled there using sterilised knives carried for the purpose.</i></p>

1.3.6 TRANSPORT OF LIVESTOCK TO SLAUGHTERHOUSES

GUIDE TO COMPLIANCE	ADVICE FOR OPERATOR
Red Meat Lairages	Red Meat Lairages
<ul style="list-style-type: none"> The design, construction and size of lairages [or waiting pens] for animals awaiting slaughter meets the requirements of animal welfare regulations. <p>G1, G3</p> <ul style="list-style-type: none"> The lairage can be easily cleaned and 	<p>For further information on facilities for animals awaiting slaughter see <i>PART FOUR Chapter x (Animal Welfare)</i>.</p> <p><i>Note: Field lairages are not considered to be part of the slaughterhouse.</i></p> <p><i>See 1.3.5 (On farm slaughter)</i></p>

<p>disinfected, has facilities to water animals at all times and provide food when necessary, and have drainage that ensures that effluent is directed away from food production areas.</p> <p>G1</p> <ul style="list-style-type: none"> There is a separate secure area for suspect or sick animals, with separate drainage, so the potential spread of disease is minimised. <p>G2</p> <ul style="list-style-type: none"> The layout of the lairage facilities, rooms and/or covered spaces provides for ante-mortem inspections of incoming animals, including their identification. <p>G3</p> <ul style="list-style-type: none"> Arrangements for disposing of hay and/or straw meet the requirements of the regulations. <p>The Transport of Animals (Cleansing and Disinfection) (England) (No 3) Order 2003; The Transport of Animals (Cleansing and Disinfection) (Scotland) Regulation 2000; The Animal by-product Regulations (NI)</p> <ul style="list-style-type: none"> If manure or digestive tract content is stored in the slaughterhouse, there must be a special area or place for that purpose. <p>G7</p>	<p><i>The secured area for sick or suspect animal should be designed so that the animal cannot escape and/or mix with other animals and remains under the control of the OV. A separate area/pen is not required where a single animal is held for slaughter. It may be used for temporary storage (e.g. bedding) as long as this can be and is removed immediately if the facility is needed for livestock.</i></p> <p>Ante-mortem facilities - provide adequate lighting, space and access to enable ante-mortem inspection to be properly undertaken. Suitable animal restraint facilities for detailed examination (e.g. a crush) are required to allow detailed examination of individual animals.</p> <p>Disposal of hay and straw - transport of animals regulations cover the disposal of hay and straw contaminated with animal manure (classified as a category 2 animal by-product).</p> <p>Manure – provide a manure bay near the lairage on the dirty side of the plant. The floor should slightly slope to the front where a drain should be provided to prevent the overflow of waste.</p>
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White Meat Animal Reception Areas	White Meat Animal Reception Areas
<ul style="list-style-type: none"> The design, construction and size of rooms and/or covered spaces for poultry or lagomorphs awaiting slaughter meet the requirements of welfare regulations. <p>H1</p> <ul style="list-style-type: none"> The layout of the reception area provides for ante-mortem inspections of incoming animals, including their identification. <p>H1</p>	<p>For further information on see <i>PART THREE Chapter (Animal Welfare) and Section 1.3.5 (On-farm slaughter)</i>.</p> <p><i>Provide adequate lighting, space and access to enable ante mortem inspection to be properly undertaken.</i></p>
Facilities for cleaning livestock vehicles	Facilities for cleaning livestock vehicles
<ul style="list-style-type: none"> Facilities for the cleaning, washing and disinfection of means of transport of livestock should be provided in a separate. <p>G4</p>	<p><i>For biosecurity reasons, facilities for cleaning livestock transport vehicles are normally required on the slaughterhouse site. Off-site facilities may be authorised by the OV if they meet the required criteria.</i></p> <p>On site facilities require:</p> <ul style="list-style-type: none"> ▪ <i>Impervious hard standing, with space to cater for normal vehicle throughput without undue delay.</i> ▪ <i>Functionality in all weather conditions.</i> ▪ <i>Drainage facilities sufficient for the quantity of liquid waste generated during cleaning and disinfection.</i> ▪ <i>Adequate supplies of potable running water under pressure.</i> ▪ <i>Equipment (i.e. sprays, high-pressure hoses, brushes etc) with which to apply approved disinfectant.</i> ▪ <i>Adequate supplies of approved disinfectant for use at approved dilution ratios, for thorough disinfection.</i> ▪ <i>Safe storage and cleaning of, and access to,</i>

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	<p>equipment.</p> <ul style="list-style-type: none"> ▪ Safe storage facilities for debris/ hay / straw removed from vehicles, before its destruction, treatment or disposal, so that animals have no access to it, ▪ Sufficient light in which to work and inspect. <p>Off site facilities require:</p> <ul style="list-style-type: none"> ▪ It is possible for the OV to supervise the facilities. ▪ They are within a reasonable distance of the slaughterhouse. ▪ The operator has a high degree of control over the facilities (cannot rely on facilities run by someone with no connection to the plant). ▪ The facilities are in practice regarded as part of the slaughterhouse. <p>See Chapter 14 (Transport Hygiene)</p>
Facilities for cleaning poultry crates	Facilities for cleaning poultry crates
<ul style="list-style-type: none"> • Facilities for washing poultry crates (or modules) are provided on-site – see requirements above for on-site cleaning of transport vehicles. <p>H2</p>	<p>Off-site facilities for crates are not permitted.</p>

1.3.7 SLAUGHTERHOUSES

GUIDE TO COMPLIANCE	ADVICE FOR OPERATOR
Layout (see also Section 1.3.3)	Layout (see also Section 1.3.3)
<ul style="list-style-type: none"> • The slaughterhouse has sufficient rooms for the operations being carried out to ensure the adequate separation of the following processes so that meat does not become contaminated: <p>G6, H2</p>	<p>Effective physical separation of clean and dirty operations is key in eliminating sources of contamination. Only where this is impossible should time separation be used and then only with an effective cleaning and disinfecting regime between operations.</p>

<ul style="list-style-type: none"> • If handled in a slaughterhouse, approved for other species, precautions are taken to prevent contamination by separation in time or space of operations carried out on different species. <p>F7</p> <ul style="list-style-type: none"> • Separate facilities are available for the reception and storage of unskinned carcasses of farmed game slaughtered at the farm and for unskinned wild game. <p>F7</p> <p>For red meat, there is separation of:</p> <ul style="list-style-type: none"> ▪ Stunning and bleeding; ▪ For pigs: scalding, depilation, scraping and singeing; ▪ Evisceration and further dressing; ▪ Cleaning and handling of guts and tripe; ▪ Preparation and cleaning of offal, particularly handling of skinned heads if this is not done at the slaughter line; ▪ Packing offal; ▪ Dispatching meat. <p>G6a, G6c</p> <ul style="list-style-type: none"> ▪ There is a separate room for the emptying and cleaning of stomachs and intestines to prevent contamination of meat with gut contents, unless Competent Authority authorises separation on time separation on a case-by-case-basis. <p>G6b</p>	<p><i>A 'straight line' layout leading from dirty to clean areas is preferable and allows easy physical separation of operations and materials. In older premises there may be crossovers or a doubling back in the layout. If this is the case it may be necessary to install barriers to prevent contamination. The layout should make it difficult for staff to pass from dirty to clean areas without washing hands and changing protective clothing.</i></p> <p>Examples of dirty areas:</p> <ul style="list-style-type: none"> ? Lairage ? Green offal (i.e. Stomach and intestine) emptying room ? Unfit meat holding facility ? By-products <p>Examples of transitional areas where clean and dirty operations meet:</p> <ul style="list-style-type: none"> ? Stun/stick ? Slaughter hall ? Detained meat loop and chiller ? Equipment wash rooms ? Staff amenities <p>Examples of clean areas:</p> <ul style="list-style-type: none"> ? Red offal preparation and packing ? Carcase chiller ? Despatch <p>Green offal - time separation for emptying and cleaning green offal may be authorised at the premises, providing the OV agrees (and signs for the record) the operator's written procedure on how this operation will be carried out.</p> <p>Entrances/Exits -- slaughterhouse layouts should</p>
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<ul style="list-style-type: none"> ▪ <p>For white meat, there is separation of:</p> <ul style="list-style-type: none"> ▪ Stunning and bleeding ▪ Scalding plucking, and skinning ▪ Dispatching meat <p>H2a, H2c</p> <ul style="list-style-type: none"> • There are separate rooms for evisceration and further dressing, including the addition of seasonings to whole poultry carcasses, unless the competent authority authorises separation in time of these operations ... on a case-by-case basis; <p>H2b</p>	<p><i>ideally include a separate entrance and exit from the site. Where there is one entrance for livestock and finished products hygiene is not compromised.</i></p> <p>Separation of evisceration and further dressing - time separation may be authorised at the premises, providing the OV agrees (and signs for the record) the operator's written procedure on how this operation will be carried out.</p>
<p>Slaughter lines</p>	<p>Slaughter lines</p>
<ul style="list-style-type: none"> • Slaughter lines are designed so that the slaughter process can operate progressively without interruptions and cross contamination between different parts of the line are avoided. • Where more than one line is operated adequate separation should be to prevent cross contamination <p>F2</p> <ul style="list-style-type: none"> • Where ratities are slaughtered, facilities adapted to the size of the animals are provided. <p>H4</p> <ul style="list-style-type: none"> • Until post mortem inspection is completed, parts of a slaughtered animal remain identifiable to given carcase and do not come into contact 	<p><i>Prior to the inspection point all carcasses are suspect and so must be kept separated from each other. The design of the line, including any rail system should allow suspect carcasses to be moved to the detention area which should be located adjacent to the main slaughterhall inspection points in order to facilitate communication of disease findings. From the detained room the overhead should reconnect with the main slaughter line for the carcase to go either to the chill rooms or to the unfit rooms. See Chapter 9 (Hygienic production)</i></p>

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with any other carcase, offal or viscera. 853/2004 Annex III Section I Chapter IV	
Reserved Slaughter Facilities	Reserved Slaughter Facilities
<ul style="list-style-type: none"> Lockable facilities reserved for the slaughter of sick and suspect animals should be provided, this is not required the slaughter of such animals take place at the need of the normal slaughter period. G5	<p><i>Where reserved facilities are not available, sick or suspect animals must be slaughtered at the end of the normal slaughter period.</i></p>
Meat handling systems	Meat handling systems
<ul style="list-style-type: none"> Installations are in place to ensure that meat does not come into contact with the floor or with walls and fixtures, all of which may be a source of contamination. See also Equipment section above F1 <ul style="list-style-type: none"> Meat is handled and moved through the plant in such away that opportunities for contact with non food-handling surfaces are eliminated. F1	<p><i>The use of conveyors, metal cradles and overhead rails for line dressing of carcasses will allow this requirement to be met. Lines should be installed at a height that does not allow the carcasses to drag across the floor or any raised surfaces, such as inspection tables, and ensures that they are always clear of potentially contaminated surfaces.</i></p>
Post mortem inspection facilities	Post mortem inspection facilities
<ul style="list-style-type: none"> Post mortem inspection is to be carried out under suitable conditions with suitable facilities. 853/2004, Annex III, Section I Chapter IV, para.12 and Section II, Chapter IV, para.6	<p><i>Locate the post mortem inspection points close after the following dressing procedure:</i></p> <ul style="list-style-type: none"> <i>Head removal (for inspection of the head)</i> <i>Evisceration (for inspection of green and red offal)</i> <i>Carcase split (for inspection of the carcasses, and health marking)</i> <p>Post-mortem facilities - <i>The inspection point should have enough space to allow the inspection to be carried out hygienically and effectively, for post mortem findings to be recorded and should</i></p>

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	<p>include:</p> <ul style="list-style-type: none"> ▪ Lighting at 540 lux that does not distort colours. ▪ Hand and if possible apron washing facilities and, steriliser (see above) ▪ A system that allows carcasses to go to the detained room for further inspection (red meat) (see slaughterlines above) • Hang back facilities to allow further inspection (poultry).
Disinfecting tools	Disinfecting tools
<ul style="list-style-type: none"> • Where hot water is used for disinfecting tools, it has a minimum temperature of 82°C. <p>F3</p>	<p>To maintain the effectiveness of sterilisers a continuous flow of water with overflow ducted to a drain is required-. Steriliser design should allow knife blades/junctions and other tools to be fully immersed. Ideally, fit temperature indicators. Avoid temperatures above 90°C.</p> <p>In slaughter rooms sterilisers need to be located close enough to workstations to allow use throughout production. To minimise condensation in cutting rooms, batch sterilisers may be installed to disinfect tools periodically during production.</p> <p>Submit proposals for alternative systems to the Veterinary Director, FSA, 125 Kingsway, London WC2B 6NH, for consideration of suitability.</p> <p>Apron and boot washers – washers and apron hanging facilities should also be provided at the entrance to workrooms in a designated ‘wet’ hygiene area. It is good practice to combine these facilities with separate equipment to wash hands and clean and disinfect tools. Apron washes may also be provided close to workstations to encourage frequent use but care must be taken with design and positioning to avoid risk of splash onto meat.</p>
<ul style="list-style-type: none"> • Other systems shown to have an equivalent effect as water at 82°C may be approved. <p>F3</p>	

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<p>Hand washing</p> <ul style="list-style-type: none"> Hand washing facilities for staff handling exposed meat are fitted with taps designed to prevent cross contamination <p>F4</p>	<p>Hand washing</p> <p><i>Staff handling exposed meat should not use taps controlled by conventional hand operated taps as this may lead to re-contamination. Elbow-operated taps should not be used as staff may use hands to operate them. Install taps that can be activated using knees or feet or automatically by sensors.</i></p>
<p>Storage of unfit/detained meat</p> <ul style="list-style-type: none"> Separate secure facilities are provided for the storage of meat declared unfit for human consumption and for detained meat. Meat detained for further inspection is kept in refrigerated storage. Hazardous and/or inedible substances are stored in separate and secure containers. <p>F5</p> <p>D4</p>	<p>Storage of unfit/detained meat</p> <p><i>There is no opportunity for cross contamination between fit and unfit meat. See Chapter 10 (Waste Management)</i></p> <p><i>An adequately equipped detained meat facility capable of being locked should include separate drains and a rail system. In premises slaughtering small numbers of young stock it may be sufficient for the detained facility to be a secure cage marked 'detained meat' with separate drainage within a chiller. Its acceptability will depend on the normal method of operation. It is not acceptable if its use interrupts / interferes with the normal operation of the chillers.</i></p>
<p>Facilities for the Veterinary Service</p> <ul style="list-style-type: none"> There are adequately equipped lockable facilities for the exclusive use of the veterinarian and meat inspection staff. <p>F6</p>	<p>Facilities for the Veterinary Service</p> <p><i>Make available a lockable room or rooms sufficient for the number of official veterinarians and/or meat inspectors working at the premises, for their exclusive use. Exceptionally, a separate room may not need to be provided in small premises where a single official is normally working for only a few days a week.</i></p> <p><i>Provide an appropriate number of desks or tables; chairs; storage for outdoor and protective clothing, lockable storage for official records, (health marks if used) and personal belongings; with power points</i></p>

	and adequate lighting.
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1.3.8 CUTTING OPERATIONS

GUIDE TO COMPLIANCE	ADVICE FOR OPERATORS
Layout	Layout
<ul style="list-style-type: none"> Premises are constructed so as to avoid contamination of meat and meat products, in particular by: allowing constant progress of the operations; or ensuring separation between the different production batches <p>I 1</p>	<p><i>There should be separation between batches to avoid cross contamination, and to allow traceability throughout production.</i></p> <p><i>There should be no accumulation of meat at particular points during production.</i></p> <p><i>Where cutting plants receive packaged meat for further processing, there should be suitable facilities for deboxing meat and the hygienic disposal of the packaging.</i></p>
Storage	Storage
<ul style="list-style-type: none"> Storage facilities allow the physical separation of exposed and packaged meat in time or space so that cross contamination between exposed meat and the packaged product cannot occur. <p>I 2, G8</p>	<p><i>Packaged meat and exposed meat may be stored in the same chiller providing that arrangements are in place to prevent hygiene being compromised. See Chapter 8 (Wrapping & Packaging).</i></p> <p><i>Vacuum-packed meat and meat in clean trays can be stored with exposed meat as long as it is not contaminated by carcase drip (i.e. there is spatial separation between exposed meat and vacuum-packs). Protect meat in trays on racks from drip from meat above.</i></p> <p><i>Temporary chillers (reefers) are unacceptable for handling and storing food and/or raw material except in extreme situations such as breakdown of normal</i></p>

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	<i>storage facilities.</i>
Temperature control	Temperature control
<ul style="list-style-type: none"> Cutting rooms are able to meet the statutory requirements for temperature control - see Chapter 13 (Temperature Control). <p>I 3</p>	
Hand washing	Hand washing
<ul style="list-style-type: none"> Hand washing facilities for staff handling exposed meat are fitted with taps designed to prevent cross contamination i.e. they are not controlled by conventional hand operated taps. <p>I 4</p>	<p><i>Staff handling exposed meat should not use taps controlled by conventional hand operated taps as this may lead to re-contamination. Elbow-operated taps should not be used as staff may use hands to operate them. Install taps that can be activated using knees or feet or automatically by sensors.</i></p>
Disinfecting tools	Disinfecting tools
<ul style="list-style-type: none"> Where hot water is used for disinfecting tools, it has a minimum temperature of 82°C. <p>I 5</p>	<p><i>Sterilisers require a continuous flow of water with overflow ducted to a drain. Steriliser design should allow knife blades/junctions and other tools to be fully immersed and should ideally be fitted with temperature indicators. To minimise condensation in cutting rooms, batch sterilisers may be installed to disinfect tools periodically during production. Avoid temperatures above 90°C.</i></p>
<ul style="list-style-type: none"> Other systems shown to have an equivalent effect as water at 82°C. may be approved. <p>I 5</p>	<p><i>Submit proposals for alternative systems to the Veterinary Director, FSA, 125 Kingsway, London WC2B 6NH for consideration of suitability.</i></p>

1.3.9 EDIBLE BY-PRODUCTS

GUIDE TO COMPLIANCE	ADVICE FOR OPERATORS
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<ul style="list-style-type: none"> Required rooms and facilities <p>J 1-5</p>	See Industry Guidance on Edible By-Products
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1.3.10 MAINTAINING AND MONITORING DESIGN PROCEDURES

GUIDE TO COMPLIANCE	ADVICE FOR OPERATORS
Operator Responsibilities	Operator Responsibilities
<ul style="list-style-type: none"> The operator is responsible for food safety in the food business. <p>852/2004 Article 1 point 1(a)</p>	<p>Operator Responsibility includes maintaining and monitoring the design, layout and construction or reconstruction, redesign or refurbishment of the premise and taking corrective action if there is a failure.</p> <p>Delegation - responsibility for maintaining and monitoring the design and facilities of the premise may be delegated to a nominated person, to whom problems are reported and who has sufficient authority to ensure that corrective action is taken when necessary.</p> <p>Expertise – When building or refurbishing premises, choose contractors i.e. architects, builders and equipment suppliers etc. carefully. Oversee the work, preferably by a person with sufficient experience and knowledge of the premises, operations and legal requirements.</p> <p>Monitoring - check that contractors are working against the agreed briefs and specifications for buildings and equipment so that any faults in design or layout can be identified quickly and corrective action taken before operations begin.</p> <p>Faults – problems may not become apparent until</p>

	<p>operations have begun and, while some problems can be corrected quickly, major problems, such as ineffective drainage or badly designed food-handling areas, or inaccessible equipment may lead to temporary closure until a solution is found. If the premise is to remain operational while building work is taking place, measures that prevent meat and meat product from being contaminated need to be put in place and closely monitored.</p> <p>Frequency of monitoring - this will depend on the likelihood of a problem being found. The work of experienced staff /contractors can be monitored less frequently than that of new or temporary people.</p> <p>Records - keep an accurate, dated account of the date and result of each periodic maintenance check, of problems raised, and of any corrective action taken. Copies of all plans, design drawings and specifications need to be kept.</p> <p>Corrective action – Take action when failures of the design or construction of buildings or installation of equipment is identified to ensure that control is restored. Such action may include:</p> <ul style="list-style-type: none"> ▪ Dealing with any product that has been contaminated; ▪ Establishing the underlying cause and what needs to be done to prevent similar incidents in the future; ▪ Ending the building or other contract.
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