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FOREWORD

The World Union of Wholesale Markets (WUWM) is a non-profit association with a wide international membership that engages in all fields and activities related to the promotion, development and international exchange of expertise and information on wholesale food markets. WUWM presently has 200 members within 45 countries worldwide.

With some 110 wholesale market members representing 21 different EU countries, the WUWM European Regional Section has a leading role in the World Union of Wholesale Markets. These European wholesale markets have more than 1,000,000 permanent employees working on the corresponding sites and the companies operating in the markets have a turnover of around 42 billion € a year.

The overall volume of marketed produce represents around 26 million tons per year, which equates to approximately 40% of the fruit and vegetable supply in Europe (24 million tons per annum), 10% of fish and fish products supply in Europe (1 million tons per annum), and 2% of meat and meat product supply in Europe (1 million tons per annum).

In parallel with the preparation of the new EU food laws known as the "hygiene package" the WUWM European Regional Section decided in 2001 to produce a Good Practice Guide (GPG) relevant to the operation and management of wholesale markets within the European Community.

The first version of this guide was officially approved by all of the EU Regional Section membership during the WUWM 25th Congress in Baltimore, USA (September 2005).

Since then and after updating:

- 1. The latest English language version of this Guide is the only official document that WUWM authorises its members to use.
- 2. Any language translations must always fully conform to this English version.
- 3. All versions which have been translated, modified or amended in any way must be sent to the WUWM for verification and control purposes.

Any approved changes to be introduced into this Community Guide must be subsequently translated and incorporated into the different language versions.

For further information on WUWM or this Guide, please contact Maria Cavit, WUWM Secretary General on the contact details provided at the top of this page.

Community Guide to Good Hygienic Practices Specific to Wholesale Market Management in the European Union

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Community Guide to Good Hygienic Practices Specific to Wholesale Market Management in the European Union

I - Introduction

A definition of a wholesale market stands in Annex 1 of Regulation (EC) N° 853/2004 under 8 "Other definitions", together with the definition of "products of animal origin".

"Wholesale market' means a food business that includes several separate units which share common installations and sections where foodstuffs are sold to food business operators."

The definition of the term "food business" is given in Regulation (EC) N° 178/2002 laying down the general principles and requirements of food law (article 3 "other definitions"):

"'food business' means any undertaking, whether for profit or not and whether public or private, carrying out any of the activities related to any stage of production, processing and distribution of food."

This guide is **specifically intended for companies managing wholesale markets**, these markets being created to organise and facilitate trading in foodstuffs. The management may be either the State or local Government itself, or a public or private company taking its powers from the State or local Government.

In such wholesale markets, there are two types of food businesses:

- The wholesale market management is a food business with the specific requirement of organising the general activity of all separate food businesses located in the wholesale market without interfering in their business. Although it is a food business, the wholesale market management does not sell goods.
- Separate food businesses are directly responsible for their food products and, in particular, responsible for meeting the requirements of food law for these products. These food businesses trade mainly with retailers, but on some wholesale markets individuals may be allowed to buy under certain conditions either from wholesale traders having a retail activity or from retailers established on the wholesale market.

Responsibility for the organization of space within a wholesale market is as follows:

- **Public areas** managed by the wholesale market management i.e. sales halls and areas, public toilets. These places are generally built by the wholesale market management and are open to traders. This guide to good practice applies to these areas under the responsibility of the wholesale market management;
- **Private areas** managed by individual food businesses. When these private areas have been built or provided by the wholesale market management, the construction should comply with food law requirements. However, the food business unit is solely responsible for the defined area.

In any case no area should remain without the responsibility of a well defined entity.

The main responsibilities of wholesale market management are as follows:

- Rent suitable accommodation to food businesses to enable them to carry out their activities within their own areas of responsibility according to food law requirements;
- Manage all public areas such as: display and sales areas, public storage facilities (i.e. managing all activities associated with cleaning, disinfecting, maintenance, chilling, cooling, etc);
- Provide and/or organise some or all utilities and services to food businesses (e.g. water, gas, heating, cooling, refrigeration, ventilation, electricity, etc);
- Provide and/or organise adequate sewage and pollution control;
- Supervise the market's waste management, pest control, etc, taking into consideration both environmental and economical aspects;
- Design and provide buildings to be occupied by food businesses and to be operated under their direct control, in conformity with the exigencies of the food law;
- Organise and manage traffic circulation within the site.

As the laws governing wholesale market management are different from one EU country to another, it is not possible to provide a list of all their responsibilities. However the distinction made between public and private areas is common to all entities.

Wholesale market management is directly responsible for ensuring that the requirements of food law are met ONLY in areas under its control. It is NOT responsible for the activities within the private premises of individual food businesses.

Nevertheless, wholesale market management has the right to inform the appropriate national competent authority responsible for Regulation enforcement in order that remedial action can be taken when a food business is in breach of hygiene regulations within the premises provided by the wholesale market management.

II - Objectives of the Guide

It is important to recall that wholesale market management is a food business and has then to comply with all EC Regulations, including those relative to the hygiene of foodstuffs. This Guide aims to provide advice to wholesale market management on that subject, especially when foodstuffs of animal origin are sold on the site.

Concerning these products of animal origin and as described in article 6 of Regulation (EC) No 853/2004 of the European Parliament and of the Council laying down specific hygiene rules on the hygiene of foodstuffs, wholesale market management has to be approved and registered when such products are sold on the site. This obligation is compulsory and is a prerequisite to the approval and registration of the other food businesses sharing common installations and sections.

As wholesale market management does not sell foodstuffs but is nevertheless responsible for installations and sections common with food businesses selling foodstuffs, this guide has been developed specifically for wholesale market management, with special requirements when products of animal origin are sold on the wholesale market.

It is not intended that this Guide affects or impinges on the various Guides of Good Hygienic Practices that may already exist, or those that may be developed in the future by food business sectors or professionals operating on wholesale markets. It does not address either upstream operations, such as production and transport, or retail operations.

It has been developed as a Community Guide, whose status has been defined under Regulation (EC) No 852/2004 (Art 9).

The document is intended for public and/or private companies responsible for the management of wholesale markets in the European Union, with the general objective of providing them with guidance on food safety and hygiene and the implementation of HACCP (Hazard Analysis Critical Control Point) based procedures, but only in relation to those aspects that directly concern them.

It has been conceived by representatives of the European Regional Section of the World Union of Wholesale Markets (WUWM), and in consultation with representatives of other interested parties such as competent authorities and relevant associations and federations in different EU countries. It takes into account the recommended International Code of Practice, General Principles of Food Hygiene, the Codex Alimentarius and existing national guides.

This Guide is developed in accordance with the following Regulations:

- Regulation (EC) No 178/2002 of the European Parliament and of the Council of 28
 January 2002 laying down the general principles and requirements of food law,
 establishing the European Food Safety Authority, and laying down procedures in
 matters of food safety;
- Regulation (EC) No 852/2004 of the European Parliament and of the Council of 29
 April 2004 on the hygiene of foodstuffs and especially articles 9 "Community Guides" and 6 "Official controls, registration and approval";
- Regulation (EC) No 853/2004 of the European Parliament and of the Council laying down specific hygiene rules on the hygiene of foodstuffs, and especially article 4 "Registration and approval of establishments";
- Regulation (EC) N° 854/2004 of the European Parliament and of the Council of 29 April 2004 laying down specific rules for the organisation of official controls on products of animal origin intended for human consumption and especially article 3 "Approval of establishments".

- Regulation (EC) No 1774/2002 of the European Parliament and of the Council of 3 October 2002 laying down health rules concerning animal by-products not intended for human consumption.

Note:

Although fish auction is mentioned in Regulation (EC) 853/2004 (Annex III, section VIII, Chapter II, point 2) together with wholesale markets, this Community Guide to Good Hygiene Practices does not cover this type of activity which is different to those taking place on a wholesale market.

III - Field of application

The activity aimed at in this Community Guide is the organisation of the wholesale sector involved in foodstuffs within the European Union. As previously stated, wholesale market management does not market foodstuffs itself. It has to facilitate free trade between suppliers (producers, wholesalers, various intermediaries) and buyers (retailers, commercial or collective catering, street market retailers, etc).

This Community guide also applies in the case of wholesale markets allowing individuals to buy on the premises, either from wholesalers having also a retail activity or from retailers present on the market. These individuals have to respect the different rules applying to professional buyers, as described in the guide, especially when it concerns foodstuffs of animal origin (i.e. protective clothing and head wear.)

As service providers, wholesale market management responsibilities in respect of hygiene and quality of produce differ fundamentally from those of food businesses directly concerned with foodstuffs, although they are intrinsically linked. Nevertheless, they may face the same types of hazards.

This Community Guide seeks to address the points where the responsibilities of wholesale market management can be identified, and those areas of responsibility which may be shared between independent food businesses and the market management.

It does not address the actual business of the independent operators who in turn should refer to sector specific guides, generally developed by product type (i.e. guides for marketing fruits and vegetables, guides for meat processing, etc.).

Wholesale markets may be specialized in one type of foodstuffs (e.g. fruit and vegetables, meat, fish and fish products) or, alternatively, they may sell a wide range of mixed foodstuffs.

The following table displays the level of sanitary risk for each type of foodstuff and the extent of the responsibility on the side of the wholesale market management as well as other food businesses.

Product	State	Level of sanitary	Level of responsibility	
		Risk	For Wholesale Market Management	For other food businesses
Fruit &	Fresh	Low	High	High
Vegetables	Processed	High	Limited or none	High
Meat &	Fresh	Very High	High	Very High
meat products	Cutting	Very High	Limited or none	Very High
	Wrapped	High	High	High
Fish &	Alive/Fresh	Very High	High	Very High
fish products	Filleted	Very High	Limited or none	Very High
	Wrapped	High	High	High
Milk &	Fresh	High	High	Very High
dairy products	Processed	High	Limited or none	Very High
	Wrapped	High	High	High
Frozen products		Very High	Limited or none	Very High
Smoked/processed products		High	Limited or none	High

Because of their general and adaptable character, the recommendations of this Guide are applicable to all types of wholesale markets whatever foodstuffs are being sold.

Analysis of the risks on a wholesale market shows that the main threat in terms of food hygiene is the possibility of foodstuffs becoming contaminated. The HACCP system is proposed as a tool to be implemented by wholesale market management to control physical, microbiological and chemical hazards only within the areas for which they are responsible. As a result, this Guide concentrates on dealing with the risk of contamination, particularly in respect of building design and layout and operational conditions/systems.

However, and as stated in Regulation (EC) No 852/2004 Chapter III article 7 (development, dissemination and use of good practice guides), it is clear that this guide is not compulsory and can be only used on a voluntary basis.

IV - Identification of wholesale market management specific responsibilities

In respect of food safety and hygiene, when the services which they provide are to, or for the benefit of, independent food businesses, the wholesale market management responsibilities may include the following:

- 1. Offering premises basically buildings and/or land;
- 2. Maintenance of premises;
- 3. Responsibility for equipments
- 4. Temperature control;
- 5. Cleaning of "public" areas;
- 6. <u>Ventilation</u> which includes air conditioning, cooling, refrigeration, heating, etc;
- 7. Lighting of public areas either inside or outside buildings;
- 8. <u>Supplying basic services:</u> such as electricity, gas, hot and cold water, drainage, sewerage, etc:
- 9. <u>Personal hygiene:</u> including toilets, wash hand basins, showers, cloakroom facilities, etc, when they are within public areas;
- 10. Waste disposal collection and removal;
- 11. Pest control;
- 12. Training;

Hazards and legislation linked with responsibilities

For each of the above identified services connected with wholesale market management specific responsibilities, the following pages provide:

- Identification of the main hazards where wholesale market management responsibilities may eventually be engaged;
- A brief analysis of the limits of wholesale market management responsibilities;
- A summary of the references to EU legislation in each case, with some explanatory comments where deemed necessary.

<u>Note:</u> Numbers given as references to EU Regulation in the following pages correspond to the chapters and sub-chapters of Annex II of Regulation No 852/2004 on the hygiene of foodstuffs or Regulation (EC) No 853/2004 when necessary. The same references apply to Chapter VI, Detailed Guide to Good Hygienic Practices of this document.

OFFERING PREMISES

a) Main hazards:

Wholesale market management offers premises to food businesses. Two possibilities generally exist:

- Wholesale market management is the owner of the premises that are rented to food businesses. In this case, the main hazard is offering premises that are not in suitable condition to allow them to comply with existing regulations and to obtain official approval (from veterinary services, etc);
- Food businesses are the owners of the premises they are occupying. In this case, all aspects of the regulations relating to the premises remain their responsibility.

When building, refurbishing or renovating, wholesale market management must take into account specific requirements corresponding to the type of food business involved, both in terms of the products and the quantities of products to be dealt with.

b) Wholesale market management responsibility

Wholesale market management responsibilities may be engaged at various levels, for example:

- Design of new premises or refurbishment carried out under its control;
- Maintenance of premises under its ownership and/or responsibility;
- Control of operations, regulation enforcement, etc.

Of course, the level of responsibility is very different between "public" areas (full responsibility) and "private" areas (shared or no responsibility).

Heading	EU Regulation 852/2004	Comments and requirements for wholesale market management
General requirements for layout, design, sitting, size of premises	I.2	Valid for new buildings and renewals when driven by, or under, the responsibility of wholesale market management. All aspects are important and must be suitable for the products to be handled: design, materials, temperature monitoring and recording, etc.
Specific requirements for processing rooms in terms of layout and design	II.1 (a) to (f)	Food businesses are generally the owners and hence responsible for this type of equipment. Wholesale market management is generally not responsible for the choice or maintenance of the equipment. Specific standards for processing rooms are much higher than for general rooms.
Cleaning Ventilation Lighting Services Personal hygiene Waste disposal Pest control		See specific sheets
Facilities for cleaning utensils & equipment	II.2	Generally not relevant for wholesale market management, except in some cases for new buildings and refurbishing or renovating.

MAINTENANCE OF PREMISES

a) Main hazards:

- Damage to the premises, with the following possible results: exposure to outside atmosphere, accumulation of dirt, pest harbourage, mould...;
- Leaks or loose fittings relative to fluids, gases, drainage, etc.;
- Possible adverse chemical reactions between construction materials and products, including cleaning products;
- Ventilation and temperature control not meeting with required levels of performance.

b) Wholesale market management responsibility

"Public" areas are fully under the responsibility of the wholesale market management.

In respect of "private" areas, two possibilities generally exist:

- Wholesale market management is the owner of the premises that are rented to food businesses. The contract between the market management and the food business operator should specify respective responsibilities concerning maintenance;
- <u>Food businesses are the owners of the premises they occupy</u>. In this case, all aspects related to premises remain their own responsibility.

Heading	EU Regulation 852/2004	Comments and requirements for wholesale market management
Maintain food premises in good repair and condition	I .1	Planned maintenance and replacement programmes. Timescales to be based on the quality of materials, construction, likely usage and wear.
Premises should protect against: - the accumulation of dirt - contact with toxic materials - shedding of particles - condensation - undesirable mould	I . 2 (b)	Regular monitoring, recording and maintenance for: - all surfaces, especially walls, ceiling; - leaks and loose fittings relative to fluids, gases, drainage; - ventilation and temperature control systems.

Activity N° 3

RESPONSIBILITY FOR EQUIPMENT

a) Main hazards:

- Risk of chemical/biological pollution

b) Wholesale market management responsibility

"Public" areas are fully under the responsibility of the wholesale market management.

In respect of "private" areas, two possibilities generally exist:

- The wholesale market management is the owner of the premises rented to food businesses. The contract between the market management and the food business operator should specify respective responsibilities concerning maintenance;
- <u>Food businesses are the owners of the premises they occupy</u>. In this case, all aspects related to premises remain their own responsibility

Heading	EU Regulation 852/2004	Comments and requirements for wholesale market management
Equipment with which food comes into contact has to be so constructed so as to minimise any risk of contamination	` '	When the wholesale market management is responsible for installing equipment, all articles should comply with Regulations relative to materials allowed to be in contact with food. This includes stainless steel, food grade plastics and ceramics.
Equipment with which food comes into contact has to be effectively cleaned and, when necessary, disinfected	V.1 (a)	See also Activity 5 "Cleaning and disinfection". In each case, a cleaning/disinfection plan has to be set in written form. The corresponding schedule should be checked and countersigned by management. This also applies when cleaning activities are contracted out to a third party

TEMPERATURE CONTROL

a) Main hazards:

- Risk of growth of bacteria causing food poisoning;
- Formation of toxins due to the growth of food poisoning bacteria

b) Wholesale market management responsibility

"Public" areas are fully under the responsibility of the wholesale market management.

As for "private" areas, two possibilities generally exist:

- <u>A common temperature control system</u> is provided as a facility by the wholesale market management for which it is then totally responsible.
- <u>Food businesses have their own temperature control system.</u> In this case, all aspects related to premises remain their own responsibility

Heading	EU Regulation 852/2004	Comments and requirements for wholesale market management
The layout, design, construction, situation and size of food premises should provide suitable temperature-controlled handling and storage conditions for maintaining foodstuffs at appropriate temperatures and be designed to allow those temperatures to be monitored and, where necessary, recorded		Foodstuffs should be kept at temperatures suitable for the corresponding type of product and in accordance with official regulations, where they exist. Cold production systems should be calibrated so as to deliver these temperatures effectively, recognising that power requirements are different for refrigeration and freezing. A temperature monitoring and recording device/system, with built in alarms, (recordable, audible and visible) should be installed in all refrigerated and/or freezer areas. All equipment used for the monitoring and recording of temperatures should be calibrated and checked on a regular basis.

CLEANING AND DISINFECTION

a) Main hazards:

Contamination of foodstuffs due to:

- Inadequate or insufficient cleaning of premises, common areas, equipment, etc.,
- Inadequate design of premises making the cleaning ineffective
- <u>Improper use of chemical agents for cleaning and disinfection</u>

b) Responsibility of wholesale market management

Public areas: full responsibility. This means that market management must define:

- Where to clean and disinfect internally and externally according to type of use;
- How to clean and disinfect: frequency, quality;
- Choice of material to facilitate cleaning and disinfection, internally and externally;
- Design of premises to allow easy and efficient cleaning and disinfection;
- Traceability, audit, etc.

Private areas: No direct responsibility for wholesale market management. Shared responsibility could be involved, in particular dependent on the design of premises, control measures, etc.

The standard format and content of a cleaning and disinfection schedule is given in chapter 5 (see I.1 section)

In all cases, it is important to note that approval must be obtained from the competent authority regarding the choice of chemical agents, their use and the conditions of their storage.

This approval is one of the prerequisites to the registration of food businesses - including wholesale market management - as described in article 6 of Regulation (EC) No 853/2004 of the European Parliament and of the Council laying down specific hygiene rules for on the hygiene of foodstuffs.

Heading	EU Regulation 852/2004	Comments and requirements for wholesale market management
General cleaning of the market	I.1.	There is a requirement for all food business operators to keep their premises clean, with an appropriate level of disinfection.
Layout / design	I.2 / VI.3	Valid for new buildings and refurbishment or renovation works arranged by wholesale market management where cleaning and disinfection should be taken into account.
Storage of cleaning and disinfecting agents	I.10	These products should be stored in a lockable container or in a specific storage room kept away from areas where food is handled. Storage facilities/rooms for cleaning products and materials should be identified by appropriate signage.

Floor	II.1.a	
Walls	II.1.b	
Ceilings	II.1.c	Refers to specific requirements for food preparation
Doors	II.1.d	areas. Only valid for new, refurbished or renovated
		buildings.
Windows	II.1.e	Also valid for <u>controls</u> .
Surfaces	II.1.f	
Facilities for cleaning	II.2	Generally not relevant for wholesale market
and disinfecting		management, except in some cases for new,
utensils & equipment		refurbished or renovated buildings.
Articles, fittings and	V. 1, 2, 3	Generally not relevant for wholesale market
equipment		management.
Food waste containers	VI.2	Refers to requirements for food waste, non-edible by-
		products and other refuse containers. Wholesale
		market management responsibilities are important at
		this level.
Sinks, wash basins and	II.3	Refers to requirements for all sinks and other
other facilities		facilities used for washing of food to be kept clean
		and disinfected.
		Wholesale market management responsibilities apply
		only to public areas.

VENTILATION

a) Main hazards:

Hazard for wholesale market management is contamination of food or personnel due to inadequate ventilation.

Under "ventilation" are included the following:

- Mechanical / non-mechanical ventilation
- Ambient / cooled / refrigerated / heated air
- Filtered / non filtered air
- Public / private areas
- Suitability (for purpose) of equipment
- Maintenance
- Vapour condensation
- Compressors fluids
- Pipes, filters, etc.

b) Responsibility of wholesale market management

Wholesale market management responsibilities may include:

- Design for public areas (new construction, refurbishing or renovating) and private areas (when responsible for design and/or building);
- Operation, control, audits.

Heading	EU Regulation 852/2004	Comments and requirements for wholesale market management
Layout and design of installations	I.2 (a), I.2 (c) & I.2 (d)	When under the control of wholesale market management, design of air supply must be carried out according to regulations. Filters and other parts of the system must be accessible for maintenance.
Operation of ventilation, supply of air	I.5	When provided by wholesale market management, ventilation, air conditioning or cooling should be checked regularly and records made/kept.
Ventilation of sanitary conveniences	I.6	Design must be adequate.

LIGHTING

a) Main hazards:

The physical and/or microbiological contamination of food due to unsuitable lighting installations and/or inadequate maintenance.

b) Responsibility of wholesale market management

Wholesale market management responsibilities may include:

- Design for public areas (new construction, refurbishing or renovating) and private areas when responsible for design and/or build (location, lighting level, type of fitting, etc);
- Cleaning;
- Maintenance.

Heading	EU Regulation 852/2004	Comments and requirements for wholesale market management
Adequate natural lighting	I.7	All windows located in areas where foodstuffs are handled and which could be opened should be protected with insect proof screens.
Adequate artificial lighting		Where open food is handled, lights should be enclosed to prevent contamination of food in the event of damage to the fitting, and to facilitate cleaning.
		Some examples at design level:
		• Fluorescent light fittings should either be provided with diffusers or fitted with protected tubes.
		• Light fittings should be flush mounted where possible and not suspended on hanging chains.
		• Wiring should be chased into the walls or ceiling.
		Cleaning conditions should be fixed and audited in public areas.
Natural and/or artificial lighting		In all cases, lighting should be sufficient to allow safe food handling and effective cleaning

SERVICES AND RESPONSIBILITIES

a) Main hazards:

Hazard for wholesale market management is food contamination due to inadequate supply of services to operators.

Under "services" are included the following:

- Electricity
- Gas
- Water (hot and cold, ice, potable or not, for cleaning, for fire fighting, cooling, sprinklers, etc.)
- Drainage (design, maintenance)
- Sewerage (design, maintenance)

b) Responsibility of wholesale market management

Although it can be assumed that potable water is supplied by water companies, attention should be given to having an adequate supply of water matching the corresponding service.

Heading	EU Regulation 852/2004	Comments and requirements for wholesale market management
Layout and design of	I.2 (c)	Design of water supply, when the responsibility of the
installations		wholesale market management, should secure water in sufficient quantity for all purposes, and of potable quality, for all operations having direct or indirect contact with food.
Drainage	I.8	Drainage facilities should be designed, constructed, maintained and cleaned to avoid the risk of contamination of foodstuffs
Water for cleaning and disinfecting working utensils	II.2	Should be of potable quality and subject to regular control and audit. Generally the responsibility of operators.
Water for washing of food	II.3	Should be of potable quality and under regular control and audit. Generally the responsibility of operators.
Water supply	VII.1	It is good practice to ensure an adequate supply of potable water, for example by making sure that water quality is tested on an annual basis by an approved laboratory.
Recycled water	VII.3	
Ice	VII.4	
Steam	VII.5	Generally the responsibility of operators
Non-potable water (Fire control, etc.)	VII.2	
Heat treatment	VII.6])

Activity N°9

PERSONAL HYGIENE

a) Main hazards:

The unacceptable risk of contamination of food due to staff and other persons, in particular when suffering from illnesses or infected wounds, skin diseases, etc.

Personal hygiene issues include: toilets, wash hand basins, sinks, showers, cloakrooms, clothing, jewellery, etc.

b) Responsibility of wholesale market management

Wholesale market management responsibilities are limited to public areas (toilets in particular).

They may also include design and/or build (new constructions and refurbishment or renovation), cleaning, maintenance, control, auditing, etc.

Heading	EU Regulation 852/2004	Comments and requirements for wholesale market management	
Personal cleanliness and protective clothing	VIII. 1	Market management hygiene policy relative to employees' cleanliness and personal hygiene.	
Employees illnesses and infected wounds	VIII.2	Market management policy concerning the reporting of any disease or trouble likely to be transmitted.	
Design and layout of installations	I.2 (c)	When it is the responsibility of wholesale market management, design and layout of installations must be carried out in accordance with regulation (to avoid cross contamination for example).	
Number, location of washbasins, toilets,	I.3, I.4	The number and location of wash basins should be fixed when building or refurbishing or renovating, taking into account the number of staff, the layout of the premises, the type of food, etc.	
Hot water provided to washbasins	I.4	Temperature of the water is important (adequate for use and avoiding contamination of pipes).	
Changing facilities available for personnel	I.9	Separate staff circulation areas between street and rooms/premises; protective clothing (food from animal origin).	

WASTE DISPOSAL

a) Main hazards:

Accumulation of waste and contamination of food.

Waste disposal includes food waste, non-edible by-products and other refuse.

b) Responsibility of wholesale market management

Wholesale market management is not directly concerned with food waste or other refuse kept in private premises. However, it is generally the responsibility of wholesale market management to provide facilities for removing food waste and other refuse.

For waste other than food waste of animal origin, wholesale market management should specify the extent of their responsibilities to food businesses present on the site:

- How waste is collected (by types of waste: animal, plant and others; solid and liquid, etc);
- Types of containers to be used;
- Cleaning and disinfecting;
- Organisation of waste collection (method of collection, frequency, hours);
- Allocation of cost.

In any case, refuse and/or waste must not be stored in such a way that it will be an attraction to pests.

c) Reference to EU Regulation and comments

Heading	EU Regulation 852/2004	Comments and requirements for wholesale market management
Waste collection	VI.1	Food waste of animal origin is generally the responsibility of the food businesses present on the site and requires specialised companies.
Type of containers and evacuation of food waste	VI.2 (1)	There should be different containers for different types of product, washable, and in good condition.
Refuse stores: design and management	VI.3	Management, cleaning, operation must be properly organised.
Environmental constraints	VI.4	Limit the risk for environment (recycling cardboard, wooden boxes and pallets, compost). Special treatment for liquid waste.

(1) See also Regulation (EC) No 1774/2002 of the European Parliament and of the Council of 3 October 2002 laying down health rules concerning animal by-products not intended for human consumption.

PEST CONTROL

a) Main hazards:

Pest proliferation and infestation creating related hygiene problems and food contamination.

b) Responsibility of wholesale market management

Limited to public areas.

Eventual control and monitoring in private areas.

Type of pest control, frequency, monitoring should be clearly defined.

c) Reference to EU Regulation and comments

Heading	EU Regulation 852/2004	Comments and requirements for wholesale market management	
Layout and design of installations	I.2 (c)	Wholesale market management should develop a general plan for the whole market against pest infestation, including all public zones placed under its responsibility.	
Waste management	VI.3	In any event, refuse and/or waste must not be stored in such a way that it will be an attraction to pests. Plan should cover general tidiness of the market (food waste as well as other refuse).	

Useful tip:

Although the entity responsible for pest control is different in respect of public and private areas, it is generally advisable to have a common schedule on the market.

Such a schedule avoids pest migration from a controlled zone to a non-controlled one and gives greater efficiency to actions taken against pest infestation.

PERSONAL TRAINING

a) Main hazards:

Hygiene and food safety violation due to insufficiently trained personnel.

Personal hygiene risks leading to food contamination.

b) Responsibility of wholesale market management

Staff belonging to wholesale market management or to its contracted agents should not have to handle food. Therefore these legal requirements do not apply directly to those persons.

However, they must be aware that they are working on premises dealing with fresh products and that their actions may have an impact on food safety. All employees must receive hygiene instructions specific to their activities, in particular food hazards and control measures identified by the hazard analysis.

Heading	EU Regulation 852/2004	Comments and requirements for wholesale market management
Training of all food handlers in food	XII	All employees must receive hygiene instructions specific to their activities.
hygiene matters		

V - Detailed Guide to Good Hygienic Practices

This part of the guide to Good Hygienic Practices considers seven issues in detail, each of which is referred to in a specific chapter within Annex II of EC Regulation N° 852/2004 of 29 April 2004.

These seven chapters have been detailed as they are of direct concern to wholesale market management.

- General requirements for food premises including outside areas and sites (Chapter I)
- Specific requirements in rooms where foodstuffs are prepared, treated or processed (Chapter II)
- Equipment requirements (Chapter V)
- Food waste (Chapter VI)
- Water supply (Chapter VII)
- Personal Hygiene (Chapter VIII)
- Training (Chapter XII)

GUIDE TO GOOD HYGIENIC PRACTICES FOR WHOLESALE MARKET MANAGEMENT

This guide has been developed in accordance with Regulation (EC) No 852/2004 on the hygiene of foodstuffs and, when applicable, with Regulation (EC) No 853/2004 laying down specific hygiene rules for on the hygiene of foodstuffs. Its purpose is to provide a guide of compliance with legislation for wholesale market management in the context of its relationship with food businesses working on the site whether they are traders of foodstuffs or companies preparing and treating foodstuffs.

The different chapters in this guide refer to Annex II of Regulation No 852/2004 "General hygiene requirements applying to all food businesses (except primary production)", which contains XII chapters. However, only those chapters of direct concern to wholesale market management have been developed in this guide.

CHAPTER I: GENERAL REQUIREMENTS FOR FOOD PREMISES INCLUDING OUTSIDE AREAS AND SITES

Legal requirement	Guide to compliance	Advice on good practice
	All areas should be placed under the responsibility of a specific food business, whether it is the wholesale market management or another food business. It is not possible to have an area which is not under the responsibility of a food business.	disinfection schedules be put in place to ensure that all parts of the premises and equipment are thoroughly effectively and efficiently cleaned on
	When two or more food businesses use the same area, one of them has to be responsible for the area. The wholesale market Regulations and/or the contracts between the market management and food businesses should specify the respective responsibilities within the food premises.	The cleaning / disinfection schedule, whether the responsibility of the wholesale market
	All parts of the food premises (floors, walls, ceilings, light fittings,	- Area: clear definitions of the areas to be

ventilation systems, fixed equipment, sinks, wash hand basins and cleaned/disinfected, methods to be used, toilets) should be visually clean and in a good state of repair. prescribed standards and any health and safety precautions required for each of them. Frequency and duration of the cleaning / disinfection process, appropriate to the risk, for each defined area. Product and materials to be used in each defined area including details of chemical strength, instructions for their use and their suitability for use with, or in proximity to, food. Verification and record of the frequency of application and the effectiveness of the cleaning / disinfection standard in each area. **Responsibilities**: record of responsible person for carrying out cleaning / disinfection and for checking the process. Management should check and countersign the cleaning/disinfection schedule (see schedule model in Appendix A) and encourage staff to "clean as they go". The food business with whom the responsibility lies should ensure It is good practice to avoid business disruption due to defective or broken equipment by planned that regular inspections of the food premises are undertaken to identify any structural defects or broken equipment and to arrange maintenance and replacement programmes for for remedial action. premises and equipment. Timescales for maintenance and replacement should be based on the quality of materials, construction, likely usage and wear. Premises and equipment should be in good repair and condition, efficient working order, safe and capable of being cleaned

2. The layout, design, construction, location and size of food premises are to:	The wholesale market management should take into account specific requirements corresponding to the type of food business concerned, both in terms of the products and the quantities to be dealt with.	
(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;	Materials used for construction should allow for the type of cleaning appropriate to the area. The layout and design of food premises should allow access for cleaning to all parts of the premises. The design, construction and surface finishes within food premises determine how easily they can be cleaned. It is essential that the correct materials are chosen for all ceiling, wall and floor finishes and that they are properly fixed or applied. Ventilation, air conditioning or cooling should be checked regularly and records maintained. The flow of ventilation, air conditioning or cooling should be in accordance with the size of the premises and volume of goods to be dealt with by the food business operator.	businesses responsible should ensure that adequate systems and precautions are in place to prevent adverse chemical reactions occurring between cleaning products and/or construction materials. There should be an effective separation between clean and unclean processes to reduce cross contamination. Colours and materials should be appropriate for
(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 surface;	The inside layout of the premises should prevent the accumulation of dirt in places which are inaccessible to cleaning. Existing buildings should be maintained as appropriate, e.g. minimise ledges. Construction materials should not contain any substance which may add toxic material to food either directly or indirectly. Design and construction, especially of high-level surfaces, should avoid finishes that may lead to the shedding of particles such as flaking paint, plaster and such like.	concave mouldings) to facilitate intensive cleaning. When refurbishing or renovating all ledges should be suppressed, if possible. Premises should be monitored regularly for leaks, loose fittings etc. to reduce opportunities for pest harbourage. The use of cavity walls should be avoided as they provide areas for pest harbourage

The construction, layout and size of the premises should be In areas where steam and humidity are generated, designed, taking account of the type of air system, e.g. air surfaces such as ceilings should be installed and conditioning, ventilation or cooling, to be installed to avoid the insulated to reduce the formation of condensation build-up of condensation. droplets. Painted surfaces should be of food grade quality. Food equipment, work surfaces, fittings and materials are usually the property of the food business operator and therefore his sole responsibility. (c) Permit good food hygiene Most food premises carry out many different activities such as The contract wholesale market between cleaning, storage, preparation and waste disposal. There should be management and the food business should specify practices, including protection against contamination and, in enough space in food premises to allow separation of clean and who is responsible for the maintenance and the particular, pest control; "dirty" processes and low and high risk food preparation. cleaning of the air supply system (common and/or private sections). A specific place should be designated for packaging materials to be kept apart from the area where food is prepared. Food businesses should use all possible secondary defences against pests on the premises Water supply, when under the responsibility of the wholesale (baits, electric killers etc.). market management, should be of potable quality for all operations having a direct link with food. Premises and equipment should be designed, constructed and maintained to control the risk of Ventilation should be suitable, efficient and so designed that product contamination and to comply with all contaminated air (e.g. from toilet or refuse stores) is not brought relevant legislation. into food rooms. Filters and other parts of the system should be Where external doors to raw material handling, accessible either directly or through access panels. processing, packing and storage areas are kept

and sufficient means of ventilation in food premises.

Filters should be maintained and cleaned. There should be suitable prevent pest ingress.

Facilities should be provided for good personnel hygiene (see 3 and location of all pest control measures should be

open, suitable precautions shall be taken to

The layout of traps should be documented. The

identified in a plan/diagram of site.

Premises should be designed to prevent access by and harbourage Inspections should be documented. of pests. Doors, shutters and other openings should be of close fitting type. If pest control is contracted to a third party, it is essential that the contract incorporates the above All windows, which are located in areas where food is handled and mentioned requirements. which could be opened, should be protected with insect proof screens. Staff training should include identification of common pests and indications of In addition, the wholesale market management should develop a infestations. general plan to prevent pest infestation for all public areas within the market site for which it is responsible. This plan should also take into account the general tidiness of market (food waste as well as other refuse). Any such plan and associated drawings should seek to record the assigned responsibilities of the food business operators. (d) Where necessary provide suitable When the design and construction of storage rooms, chills and The contract between the wholesale market temperature-controlled handling freezer boxes are the responsibility of the wholesale market management and the food business should specify management, they should be capable of keeping foodstuffs at whose responsibility it is for monitoring, and storage conditions of temperatures suitable for the product and in accordance with recording and maintaining these installations. sufficient capacity for official regulations where they exist. The design and construction maintaining foodstuffs at appropriate temperatures and of food preparation rooms should be such as to prevent the build up Distinction should be made between public and designed to allow those of excessive temperatures. private areas. temperatures to be monitored An automatic temperature monitoring and recording device/system, and, where necessary, recorded. with built in alarms, (recordable, audible and visible) should be installed in all refrigerated areas, including all back-up chillers and freezers. All equipment used for the monitoring and recording of temperatures should be calibrated and checked on a regular basis.

3. 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.

There should be an intervening space between the toilet and any Notices requesting users to wash their hands after room where open food is handled.

Toilets should be connected to a drainage system through an effective trap. Toilets (either WC or urinals) should not lead The food business is generally responsible for directly into any area where open food is present.

In businesses with a high number of customers calling on site, it is generally responsible for drainage outside the advisable to provide customers with separate toilets from those used by employees.

using the toilet should be fixed in a suitable position near every toilet used by food handlers.

that part of the drainage situated within private areas. The wholesale market management is private areas up to the connection to the local authorities or public sewage system. These responsibilities should be specified in the contracts.

In both cases, special care should be taken to ensure that the whole system functions perfectly.

4. An adequate number of washbasins are 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.

All staff working in food businesses should have access to a wash The contract between the wholesale market hand basin at all times.

If staff is unable to leave the premises to wash hands, washbasins should be provided directly at the premises.

The number and location of wash basins should be determined by Frequency of cleaning should be stated. taking into account:

- The number of staff working in the different food businesses Suitable materials for washbasins include (e.g. 1 washbasin for 7 staff);
- The layout of the premises;
- The type of food;
- The extent of food handling.

management and the food business operator should specify who is in charge of cleaning and maintaining the different washbasins available, in private as well as in public areas.

stainless steel, food grade plastic and ceramic. It is strongly recommended that where any open food is handled, washbasins are provided on the premises rather than relying on common facilities.

Wash basins should be located close to toilet facilities and at Generally, the wholesale market management is strategic places in the premises so that any worker has convenient responsible for water supply (hot and cold) as access to them. Wash basins should preferably be used only for well as overall analysis of water quality. hand washing. When there is an unacceptable risk of contamination However, food businesses should monitor and of food, facilities for washing food should be separate from handwashing facilities

Wash basins should be provided at the entrance to all food preparation areas.

Additional units may also be located in loading and despatch bays.

A single mixer tap is acceptable as well as water supplied at a regulated temperature from a piped supply or heating unit. However, notice should be taken of the fact that, with hot water, too long a length of pipe may cause bacterial contamination in the long term.

Preferably, wash basins should not be operated by hand.

It is recommended that, if equipment or food has to be washed, it should be done in specific basins other than those used for hand washing. This type of specific equipment should be taken into account when building, refurbishing or renovating.

Natural or mechanical ventilation should be provided to ensure that The wholesale market management is generally heat and humidity do not build up to levels that could compromise the safety of food.

The degree of ventilation will depend on the structure, site, location and use of the room.

control hand washing, as it is known that food contamination can occur very quickly if rules and standards are not maintained.

Food businesses are generally responsible for such items as:

- the type of soap used (bactericidal if possible but not perfumed, especially in food preparation rooms);
- bins (preferably foot operated if disposable paper towels are used);
- air dryers or roller towels should not be used in food preparation rooms as their installation may induce contamination (risk of germ dissemination through air movements for air dryers for instance), paper towels are recommended.

responsible for the control of ventilation when it is set for a whole building. Food businesses should be aware that they should not modify the ventilation ducts system in private premises as it can have an effect on the whole ventilation system.

5. There is to be suitable and sufficient means of natural and 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, maintenance or replacement to be readily accessible.	Filters and other parts of the system should be accessible and easy to exchange and maintain either directly or through access panels.	Cleaning of ventilation is also generally the responsibility of the wholesale market management as it requires to be carried out by a specialist company. Contracts with food businesses should state who is responsible for the cleaning, the frequency of this cleaning, maintaining records and the financial contributions to be made by the different users. Mechanical airflow and filters should be subject to a cleaning/disinfection plan.
6. Sanitary conveniences are to have adequate natural or mechanical ventilation.	Toilets should have either natural or mechanical ventilation to prevent offensive odours and aerosols from penetrating food rooms. In internal areas of premises, toilets require mechanical ventilation. The design should be such that these systems discharge away from food rooms.	
7. Food premises are to have adequate natural and/or artificial lighting.	Lighting should be sufficient to allow safe food handling and effective cleaning. Illumination levels should correspond to the type of room and have no impact on the temperature level in the premises. Lights should be protected with shatterproof diffusers throughout the premises, except within offices.	enclosed to prevent contamination of food in the event of damage to the fitting, and to facilitate

		these are dirt traps. Where practicable, wiring should be chased into the walls or ceiling. The use of surface mounted conduits and surface mounted switch boxes should be avoided.
8. 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.	Wholesale market management should ensure that drains have sufficient fall to allow all solid and liquid waste to flow away. The direction of the flow should go from clean areas to dirty areas. Toilets should be on a separate system from drains in the food preparation rooms. All discharge into drains should pass through an effective trap. Gully drains and drain covers should preferably be of stainless steel. Inspection points should be available but they should be adequately sealed to allow access to only specialised cleaning companies. Fat traps may be fitted in food rooms if it is impractical to locate them outside. Gully drains should be designed to prevent access by pests from the main drainage system.	Contracts between the wholesale market management and food businesses should specify respective responsibilities in terms of care and maintenance of drainage facilities. In all cases, regular maintenance and good housekeeping practices are recommended to prevent excessive discharges of fat, oil or grease entering the system. Filters and sieves should be regularly inspected and maintained.
9. Where necessary, adequate changing facilities for personnel are to be provided.	In all cases, provision should be made to allow handlers to change and to store their street clothes and personal effects. This is important for staff and visitors. When staff have to wear protective clothing, the layout of changing rooms, which is generally the responsibility of the wholesale	clothing and personal effects should be provided. The location of locker rooms should be such that personnel should pass through them when

	market management, should provide separate circulation areas for staff in street clothes and staff in protective clothing.	Locker areas should be equipped with suitable hand wash stations.
	When compulsory, access to selling halls should be refused to clients without protective clothing.	
10. Cleaning agents and disinfectants are not to be stored in areas where food is handled.	These products should be stored in a lockable container or in a specific storage room kept out from areas where food is handled. This should be included in the building design, both for food business operators and the wholesale market management, when such products have to be used.	materials should be identified by appropriate signage.

CHAPTER II: SPECIFIC REQUIREMENTS IN ROOMS WHERE FOODSTUFFS ARE PREPARED, TREATED OR PROCESSED (excluding dining areas and those premises specified in Chapter III)

Legal requirement	Guide to compliance	Advice on good practice
1. In rooms where food is prepared, treated or processed (excluding dining areas and those premises specified in Chapter III but including rooms contained in means of transport) the design and layout are to permit good food hygiene practices, including protection against contamination between and during operations. In particular:	Wholesale market management has to take into account specific requirements corresponding to the type of product concerned.	The contract between the wholesale market management and food businesses has to specify who is responsible for: - cleaning and disinfecting, - maintaining, - renewing.
(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, nonabsorbent, washable, and nontoxic materials unless food business operators can satisfy the competent authority that other materials used are	Wholesale market management should use materials and techniques that comply with this regulation. All surfaces should be non-slip. Materials such as flooring tiles, vinyl seamless safety flooring, terrazzo, epoxy resin, granolithic, etc may be used, but in all cases they should be perfectly sealed. Floors should be designed to prevent water lying or pooling. Where there may be significant spillage or where wet cleaning is used, floor drains may be provided. Floors levels should fall towards the floor drains.	of activities require a very high frequency of cleaning and disinfecting. This applies particularly in the case of meat and fish preparation areas. The cleaning / disinfection schedule, whether the responsibility of the wholesale market management or a contracted third party, should

appropriate. Where

Drain gullies should be either glazed, ceramic or stainless steel with - Area: clear definitions of the areas to be

appropriate, floors should allow adequate surface drainage;	good seals between them and the floor surface. Drain covers should ideally be stainless steel, double sealed and bolted down. Drains may have fat and grease traps fitted to catch larger particles. Such traps should be fitted externally to these rooms. Drains should be designed to prevent access by pests from the main drainage system	cleaned / disinfected, methods to be used, prescribed standards and any health and safety precautions required for each of them. - Frequency and duration of the cleaning/ disinfection process, appropriate to the hazard for each defined area. - Product and materials to be used in each defined area including details of chemical strength, instructions for their use and their suitability for use with, or in proximity to, food.
		 Verification and record of the frequency of application and the effectiveness of the cleaning / disinfection standard in each area. Responsibilities: record of responsible person for carrying out cleaning / disinfection and for checking the process. Management should check and countersign the cleaning/disinfection schedule (see schedule model in Appendix A) and encourage staff to "clean as they go".
(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, nonabsorbent, washable and nontoxic materials and require a smooth surface up to a height	Wall surfaces should be of such quality to comply with this requirement. This includes painted plaster, epoxy resin, PVC, GRP and other similar proprietary sheeting, ceramic tiles, stainless steel sheeting and plastisol, insulated panels, etc. Damaged or broken surfaces should be repaired or replaced immediately or as soon as practicable. All junctions between floors and walls and vertical wall angles should be coved (with concave mouldings) and effectively sealed to	paragraphs I. and II (a) & (b).

appropriate for the operations unless food business operators can satisfy the competent authority that other materials used are appropriate;	facilitate cleaning. When sheeting is used, care should be taken to ensure that joints are effectively sealed. All surfaces and particularly vertical angles should be protected against physical damage.	
(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;	Ceilings should be designed to allow for effective periodic cleaning to take place and be properly maintained. All surfaces should be capable of being cleaned. Materials that comply with this requirement include painted plaster, fixed ceiling systems, suspended ceilings, plastisol and insulated panels. Polystyrene or fibre tiles are not recommended because they are difficult to seal. Open steel work should be suitably sealed. All suspended ceilings should have access for pest monitoring purposes. The choice of material, the design of the ceiling and the insulation properties may be important in reducing condensation. In most cases the materials stated above will provide an acceptable surface, provided they are in a sound state of repair. Adequate ventilation combined with the proper use of materials should be of paramount importance when designing a structure. Ceilings should be periodically maintained to remove any mould build up or any other particles or debris that could fall into food. Any mould growth should be removed as and when necessary. Light fittings should have diffusers fitted. Adequate facilities for maintaining and cleaning ceilings should be provided when necessary In food preparation rooms, fixed windows are recommended.	paragraphs I. and II (a). Ceilings and overhead fixtures should be subject to a cleaning / disinfection plan. Painted surfaces should be of food grade quality. (See also comments in chapter I No 2 b) Premises should be monitored regularly for leaks, loose fittings etc., to reduce opportunities of pest harbourage. It should be ensured that such areas are reviewed by the pest control contractor.

(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;

All opening windows in food preparation areas should be adequately See comments already mentioned in paragraphs I. screened when they are opened during food preparation. This and II (a). screening is necessary to prevent a risk of infestation and/or contamination.

Screens should be constructed of suitable durable materials, ideally plastic or aluminium frames with plastic or stainless steel mesh.

Where dirt/debris builds up on insect proof screens, this may present a risk of food contamination therefore the screens should be capable of being easily removed for cleaning.

Insect proof screens should be subject to a cleaning / disinfection plan.

Glass windows in processing and packing areas should be protected against glass breakage.

(e) Doors are to be easy to clean and, where necessary, to disinfect. This will require the use of smooth and nonabsorbent surfaces unless food business operators can satisfy the competent authority that other materials used are appropriate;

Any door which staff handling open food may come into contact Same comments than already mentioned in with should be capable of being easily cleaned and disinfected. This paragraphs I and II (a). also applies to door furniture, such as fingerplates and handles.

Doors should be of flush design to avoid corners or mouldings that disinfection plan. may accumulate dirt. Swing doors, which are not made of PVC or similar proprietary material, should be fitted with push pallets or kick plates in preference to handles.

Door finishes which comply with this requirement include painted wood, painted metal, plastic and PVC

Wood coated with a suitable impervious material such as PVC, GRP or other proprietary sheeting, is also permitted. Unsealed wood does not comply. Varnished wood is not recommended

The doorframe should also be constructed with the required finish, e.g. smooth and non-absorbent. If doors have vision panels, the material used should be non-breakable. Glass, when used, should be

Doors should be subject to a cleaning

Doors should have suitable, impervious and easy to clean surfaces and be maintained in a good state of repair.

The use of all materials and finishes should be subject to careful consideration of the suitability of their technical performance for the purpose intended.

	toughened. If door cladding is used, it should be suitably sealed to the surface to avoid contamination.	
(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 nontoxic materials, unless food business operators can satisfy the competent authority that other materials used are appropriate.	This regulation covers food preparation surfaces and equipment that comes into contact with food. Such equipment is usually privately owned by the tenant. Only when specifically stated will the wholesale market management be responsible for the type of equipment installed or the surfaces and parts of the equipment which come into contact with food	include stainless steel, food grade plastics and ceramics. Plastics such as polypropylene should not be allowed to become scored or chipped, such as they could not be effectively cleaned and

			disinfection programs, - method and standard required, - verification of the effectiveness of cleaning and frequency appropriate to the risk, - any health and safety precautions, - who is responsible for cleaning, - who is responsible for checking, If cleaning activities are contracted out to a third party, it is essential that the contract incorporates the above mentioned requirements. Management should check and countersign the cleaning / disinfection schedule (see schedule model in Appendix A) and encourage staff to "clean as they go".
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 corrosionresistant materials, be easy to clean and have an adequate supply of hot and cold water.	As stated in the previous paragraph, equipment and utensils are generally the private property of food businesses. However, sink facilities are usually the responsibility of the wholesale market management. When this is the case, stainless steel is recommended. A single mixer tap is acceptable or water supplied at a regulated temperature from a piped supply or heating unit. In some cases utensil sterilisers and/or air dryers may be provided by the wholesale market management. This equipment should be of durable construction and resistant to corrosion.	responsibility of the food business unless otherwise stated to be the responsibility of the wholesale market management within a contract or the Market Regulations themselves. The cleaning/disinfection schedule, whether the responsibility of the wholesale market management or a contracted third party, should be in written form and include the following: - Area: clear definitions of the areas to be

		for each defined area. - Product and materials to be used in each defined area including details of chemical strength, instructions for their use and their suitability for use with, or in proximity to, food. - Verification and record of the frequency of application and the effectiveness of the cleaning / disinfection standard in each area. - Responsibilities: record of responsible person for carrying out cleaning / disinfection and for checking the process. Facilities should be designed, constructed and maintained to prevent the risk of product contamination.
Adequate provision is to be made, where necessary, for washing food.	Separate sinks should be provided for food preparation and equipment washing.	Wash basins should be subject to a cleaning / disinfection plan
Every sink or other such facility provided for the washing of food is	In small operations, one sink may be used for both equipment and food washing provided that both activities can be done effectively	•
to have an adequate supply of hot	and without prejudice to food safety (the sink should be thoroughly	
and/or cold potable water	cleaned and disinfected prior to being used for food preparation).	
consistent with the requirements of	A single mixer tap is acceptable or water supplied at a regulated	
Chapter VII and be kept clean and, where necessary, disinfected.	temperature from a piped supply or heating unit.	
where necessary, aisinjectea.		

CHAPTER V: EQUIPMENT REQUIREMENTS

Legal requirement	Guide to compliance	Advice on good practice
1. All articles, fittings and equipment with which food comes into contact are to:	The wholesale market management is generally not responsible for such equipment.	Generally food businesses present on the market are solely responsible for such equipment.
(a) Be effectively cleaned and, where necessary, disinfected.	In the case of a responsibility in equipments as may be stated in the contract between the wholesale market management and other food	
Cleaning and disinfection are to take place at a frequency sufficient to avoid any risk of	businesses, advices given in right column should apply.	Cleaning and disinfection frequency is dependent on the degree of risk.
contamination; (b) Be so constructed, be of such		The cleaning / disinfection schedule, whether the responsibility of the wholesale market management or a contracted third party, should
materials and be kept in such good order, repair and		be in written form and include the following:
condition as to minimise any risk of contamination;		- <u>Area</u> : clear definitions of the areas to be cleaned/disinfected, methods to be used, prescribed standards and any health and
(c) With the exception of non- returnable containers and		safety precautions required for each of them. - Frequency and duration of the cleaning/
packaging, be so constructed, be of such materials and be kept in such good order, repair		disinfection process, appropriate to the risk, for each defined area.Product and Materials to be used in each
and condition as to enable them to be kept clean and, where necessary, to be disinfected;		defined area including details of chemical strength, instructions for their use and their suitability for use with, or in proximity to,
and		food. - Verification and record of the frequency of

(d) Be installed in such a manner as to allow adequate cleaning of the equipment and the surrounding area.		 application and the effectiveness of the cleaning / disinfection standard in each area. Responsibilities: record of responsible person for carrying out cleaning / disinfection and for checking the process.
		Management should check and countersign the cleaning/disinfection schedule (see schedule model in Appendix A) and encourage staff to "clean as they go".
		Equipment should be integrated into maintenance schedules.
2. Where necessary, equipment is to be fitted with any appropriate control device to guarantee fulfilment of this Regulation's objectives.	The wholesale market management is not generally responsible for such equipment.	Generally food businesses present on the market are solely responsible for such equipment.
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.	The wholesale market management is not generally responsible for such equipment.	Generally food businesses present on the market are solely responsible for such equipment.

CHAPTER VI: FOOD WASTE

Legal requirement		Guide to compliance	Advice on good practice
1.	Food waste, non-edible by- products and other refuse are to be removed from rooms	The wholesale market management is directly concerned with refuse present in public areas. Therefore waste containers should be placed at strategic places on	waste should be disposed of in separate containers.
	where food is present as quickly as possible, so as to avoid their accumulation.	the market and suitably marked indicating their use for "food waste other than of animal origin" "or "refuse" only.	According to present regulations, food waste of animal origin is the direct responsibility of the
		It is also generally the responsibility of the wholesale market management to provide facilities for removing food waste and other refuse generated in private areas.	
		However food waste of animal origin produced by food businesses is their direct responsibility.	Removal of food waste of animal origin should be dealt with directly by the food business
		In any case, refuse and/or waste should not be stored in any way that it will be an attraction to pests [refer to Chapter I.2(c)].	
		For waste other than food waste of animal origin, the contract between food businesses and the wholesale market management should specify:	The cleaning / disinfection schedule, whether the responsibility of the wholesale market management or a contracted third party, should be in written form and include the following:
		 how waste is collected (directly from food businesses, from specified central collection points etc); the owner's name if specified types of containers have to be 	
		used; - by whom the containers are provided; - by whom the containers should be cleaned and disinfected; - in the case of collection of selected waste, the method of	safety precautions required for each of them. - Frequency and duration of the cleaning/ disinfection process, appropriate to the risk, for each defined area.

		collection and the colour of the containers to be used, plus the frequency and hours of collection; - how the cost of such an activity is to be allocated between food businesses and the wholesale market management.	defined area including details of chemical
pr to co bu de au co sy Ti ar ke	Food waste, non-edible by- roducts and other refuse are be deposited in closable ontainers, unless food usiness operators can emonstrate to the competent uthority that other types of ontainers or evacuation estems used are appropriate. These containers are to be of appropriate construction, ept in sound condition, be asy to clean and, when ecessary, to disinfect.	Refuse and/or waste should not be stored in such a way that it will be an attraction to pests. The internal and external surfaces of non-disposable waste containers should be washable and in good repair. For businesses which produce only dry waste such as packaging, waste containers may not need to be closed. In the case of liquid waste not linked directly to mains drainage systems, holding tanks have to be used (waste containers and waste tanks should be clearly marked as such). In all cases adequate steps should be taken not to pollute the environment.	cleaning bins easier. When rubbish is removed to a central storage area, plastic sacks should be placed in closed, rodent and bird proof containers. When open food, other than whole fruit and vegetables is handled, all bins should have foot, knee or elbow operated lids.

3.	Adequate provision is to be made for the storage and disposal of food waste, nonedible 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	 When the wholesale market management provides central refuse stores, these should be: kept clean and tidy with regular washing of the openings to chutes and floor areas around chutes, skips, bins, and other soil surfaces and equipment; managed and supervised in such a way to ensure that they are kept clean and not misused; kept free from pests such as rodents, birds, carnivores, arthropods, etc. Bins should be closed and compactor areas should be physically separated from where food is stored or prepared. Any accommodation should be proofed against access by pests. Regular cleaning should be carried out. 	cleaning/disinfection plan. (See also notes mentioned in chapter I No 1 Cleaning)
<i>4</i> .	All waste is to be eliminated in a hygienic and environmentally friendly way in accordance with Community legislation applicable to that effect, and is not to constitute a direct or indirect source of contamination.	The wholesale market management, when responsible for waste and refuse removal, should take all possible precautions to limit the risk of pollution of the environment. Waste recycling (cardboard, wooden boxes, palettes, composting of vegetable waste etc) is preferable to burning when practicable. When waste is burnt on site gaseous emissions should comply with Community legislation. Liquid waste should not go directly into the mains drainage system without the prior agreement of the relevant authority.	

CHAPTER VII: WATER SUPPLY

Legal requirement	Guide to compliance	Advice on good practice
1. a) There is to be an adequate supply of potable water which is to be used whenever necessary, to ensure that foodstuffs are not contaminated; b) Clean water may be used with whole fishery products. Clean seawater may be used with live bivalve molluscs, echinoderms, tunicates and marine gastropods; clean water may also be used for external washing. When such water is used, adequate facilities are to be available for its supply.	When it is the responsibility of the wholesale market management to supply food businesses with water, attention should be taken to ensure that an adequate supply of potable water is available. Regular monitoring of the quality of water should be carried out, in order to check that the water available to food businesses meets the requirements of Directive 98/83/EC. Potable water should be used for: - hand washing; - washing food, when necessary; - inclusion in foods and drinks; - cooking of food; - cleaning of food equipment; - cleaning surfaces that come into contact with food or food handlers hands; - any other operation where there is a risk of contaminating foodstuffs.	Although it can be assumed potable water as specified in Council Directive 98/83/EC is supplied by all water companies, it is good practice to ensure water quality is tested on an annual basis by an approved laboratory. It may be necessary to test potability more frequently if interruptions or alterations have been made to the supply. Samples should be taken at specific locations determined by the importance of the water supply and in such a way that they are representative of the quality of the water consumed throughout the year. When the wholesale market management is responsible, an adequate maintenance program should be put in place to ensure water heating and mixer systems are properly maintained.
	In most cases, the supply of food business operators with seawater does not concern the wholesale market management.	When water softeners and/or water filters are used, regular monitoring and maintenance should be made in accordance with the manufacturer's instructions, including the changing of filters.

2. Where non-potable water is used, for example for fire control, steam production, refrigeration and other similar purposes, it is to circulate in a separate duly identified system. Non-potable water is not to connect with, or allow reflux into, potable water systems.

Supplies of non-potable water to food preparation areas should be If the same potable water main is used for both forbidden.

Certain applications such as fire hoses or sprinkler systems which valve should be fitted to these systems to ensure may use non-potable water should be clearly marked as such.

It is advisable to use colour codes to identify potable and nonpotable water systems.

cleaning and ancillary services, such as sprinkler systems, fire hoses etc, then a suitable non-return back flow of water does not occur. Suitable signage stating the limitation of use of such systems should be prominently displayed.

3. Recycled water used in processing or as an ingredient is not to present a risk of contamination. It is to be of the same standard as potable water, unless the competent authority is satisfied that the quality of the water cannot affect the wholesomeness of the foodstuff in its finished form.

In the case of recycled water used by food business operators, the Although it is assumed that such water is of wholesale market management should specify that such water is potable quality, recycled water used for placed under the sole responsibility of the food businesses concerned.

In all cases, there should be no possibility of connecting recycled water with the mains supply.

processing or as an ingredient is charged with biological, chemical and physical elements, the concentration of which will increase with time.

Special attention should be taken by the wholesale market management when this recycled water is to be put into the sewage system as it is a potential pollutant. Therefore, food businesses should suitably treat such waste water at their own expense prior to its introduction to the sewage system. If such treatment is impossible, a fee should be taken for the extra pollution created. The contract between the food business operator and the wholesale market management should specify these points.

4.	Ice which comes into contact with food or which may contaminate food is to be made from potable water or, when used to chill whole fishery products, clean water. It is to be made, handled and stored under conditions that protect it from contamination.	This means that ice should be made from potable water. The wholesale market management is not usually directly involved with the making of ice, but if ice is produced on the market, access to potable water should be given.	In the case of ice being made on the market, the wholesale market management should ensure that the manufacturing process complies with all relevant regulations. It is recommended that an official agreement be put in place to ensure such compliance.
5.	Steam used directly in contact with food is not to contain any substance that presents a hazard to health or is likely to contaminate the food.	If steam, usually from cleaning equipment, could come into contact with food then the steam should be made from potable water (see paragraph 1).	
6.	Where heat treatment is applied to foodstuffs in hermetically sealed containers, it is to be ensured that water used to cool the containers after heat treatment is not a source of contamination for the foodstuff.	Water used for heating or cooling foodstuffs in sealed containers should be of potable quality (see paragraph 1).	

CHAPTER VIII: PERSONAL HYGIENE

Legal requirement	Guide to compliance	Advice on good practice
1. Every person working in a food-handling area is to maintain a high degree of personal cleanliness and is to wear suitable, clean and, where necessary, protective clothing.	Employees of the wholesale market management and its contractors do not normally have to handle food. Therefore, as there is no physical contact between these persons and the food or its packaging, the specific regulations relative to food handlers do not apply to them.	The wholesale market management should have a hygiene policy and/or personal hygiene rules and all staff should be made aware and signify their understanding of them. Rules should be displayed prominently to ensure they act as a constant reminder to staff. Signs for hand washing should be displayed prominently to ensure they act as a constant reminder to staff. Facilities should be provided for eating and drinking.

2. No person suffering from, or being a carrier of a disease likely to be transmitted through food or afflicted, for example, with infected wounds, skin infections, sores or diarrhoea is to be permitted to handle food or enter any food-handling area in any capacity if there is any likelihood of direct or indirect contamination. Any person so affected and employed in a food business and who is likely to come into contact with food is to report immediately the illness or symptoms, and if possible their causes, to the food business operator.

It is necessary that the wholesale market management ensures that a clear policy exists with regard to known or suspected infection of their staff or its contractors that may lead to microbiological contamination.

Any person likely to go inside premises where food is handled should report certain illnesses or conditions where there is any likelihood of them directly or indirectly contaminating food

CHAPTER XII: TRAINING

Legal requirement	Guide to compliance	Advice on good practice
Food business operators are to ensure: 1. That food handlers are supervised and instructed and/or trained in food hygiene matters commensurate with their work activity;	Employees of the wholesale market management, and its contractors, do not normally have to handle food. Therefore, these legal requirements do not apply directly to these persons. However, they should be aware that they are working on premises dealing with fresh products and that their actions may have an impact on food safety.	job specific instruction to non-food handlers, who work in food premises on cleaning or other support activities (i.e. outside contractors) Instruction should concentrate on the way their activities as well as their personal hygiene may impinge on food safety. Knowledge evaluation
2. That those responsible for the development and maintenance of the procedure referred to in Article 5(1) of this Regulation or for the operation of relevant guides have received adequate training in the application of the HACCP principles; and	All employees should receive hygiene instructions specific to their activities. These instructions should cover food hazards and those control measures identified by the hazard analysis of their work activities. These instructions should be given before the particular work activities are carried out and be revised as a result of any change in job practices. The need for structured training depends on the risk to food safety and should take into account the problem of high staff turnover.	Instructions should, where possible, include an explanation of why the measures are necessary and how they ensure food safety. This may encourage compliance through understanding the need to protect food from harmful contamination, to protect consumers and prevent the spread of
3. Compliance with any	General information about HACCP system development should be given to all employees and a special course given to those who will be directly concerned by the application of this method.	
requirements of national law concerning training programmes for persons	The training does not have to be automatically delivered by an accredited training body, but should be of an appropriate	Instructions should be repeated at suitable intervals or explained as necessary, as identified through observation and supervision.

working in certain food sectors.

standard. It may be organised in-house, through distance learning or through outside training organisations and should be repeated at regular intervals as appropriate.

Training is aimed at ensuring that individual staff members understand why certain precautions are necessary. It is good practice, therefore, to train

Training gives a better understanding of how food can become contaminated, and how food borne illness can be avoided through proper food handling procedures.

It is good practice for a business to have a training plan to Supervisors or managers, who are not food identify the training needed for each member of staff

Supervisors or managers, who are not food handlers, but may have a direct influence on the

It is also good practice to keep records of the training completed by every member of staff

Training needs should be reviewed on a regular basis and should be judged against the role and responsibilities, the existing skills, experience and previous training of the staff.

Training is aimed at ensuring that individual staff members understand why certain precautions are necessary. It is good practice, therefore, to train all staff in food hygiene principles relevant to their job, in order to reduce the amount of supervision necessary.

Supervisors or managers, who are not food handlers, but may have a direct influence on the way operations are dealt with in terms of hygiene, should receive structured training, as appropriate.

VI – HACCP BASED PROCEDURES

A – HACCP based procedures on wholesale markets

The Regulation (EC) No 852/2004 on the hygiene of foodstuffs lays down in Article 5 that:

"1. Food business operators shall put in place, implement and maintain a permanent procedure or procedures based on the HACCP principles".

This Chapter provides some advice to wholesale market management in terms of procedures to be used in delivering the functions they are responsible for on a wholesale market, and respecting the principles of HACCP.

As stated previously, a wholesale market sits in the middle of the supply chain between production and consumption. It is, as defined in Regulation (EC) No 853/2004, "a food business that includes several separate units which share common installations and sections where foodstuffs are sold to food business operators".

This definition means that the wholesale market management has to be considered in the same way as any other food businesses, and must therefore act in accordance with the EU Food Regulations, although it does not sell foodstuffs. Being responsible of the site, the wholesale market management shares a responsibility for meeting the relevant hygiene requirements for food products as they pass through the market and must take action in terms of food hygiene.

Note to the reader:

The following pages relative to HACCP based procedures have been developed from the document "Guidance document on the implementation of procedures based on the HACCP principles, and on the facilitation of the implementation of the HACCP principles in certain food businesses." (Issued on 16 November 2005 by the European Commission Health & Consumer Protection Directorate-General) (1).

B – HACCP BASED PROCEDURES AND PREREQUISITE REQUIREMENTS

Food hygiene is the result of the implementation by food businesses of prerequisite requirements and procedures based on the HACCP principles.

It must in particular be borne in mind that prior to establishing HACCP procedures "prerequisite" food hygiene requirements must be in place and this has been the scope of the previous chapters of this guide to good practice relative to items such as:

- Infrastructural and equipment requirements;
- Temperature control and ventilation;
- Lighting;
- Sanitary procedures;
- Waste disposal (2);
- Pest control;
- Personal hygiene;
- Training.

(1) See Chapter "References"

⁽²⁾ See Regulation (EC) No 1774/2002 of the European Parliament and of the Council of 3 October 2002 laying down health rules concerning animal by-products not intended for human consumption

These prerequisite requirements are designed to control hazards in a general way and provide the foundation for effective HACCP implementation. They should be in place before a HACCP based procedure is established.

C – HACCP General principles

HACCP (Hazard Analysis Critical Control Point) identifies specific hazards and measures for their control to ensure the safety of food.

HACCP is a tool to assess hazards and establish control systems that focus on prevention rather than relying mainly on end-product testing. Any HACCP system is capable of accommodating change, such as advances in equipment design, processing procedures or technological developments.

HACCP can be applied throughout the food chain. As well as enhancing food safety, implementation of HACCP can provide other significant benefits, i.e. the application of HACCP can aid inspection by regulatory authorities and promote international trade by increasing confidence in food safety.

The successful application of HACCP requires the full commitment and involvement of management and the work force. It also requires a multidisciplinary approach.

Prior to application of HACCP to any food business including the wholesale market management, prerequisite food hygiene requirements should have been implemented.

Management commitment is necessary for implementation of an effective HACCP. During hazard identification, evaluation, and subsequent operations in designing and applying HACCP, consideration must be given to the impact of the actions taken by the wholesale market management to control hazards, and epidemiological evidence relative to food safety.

The intent of HACCP is to focus control at critical control points (CCPs) and HACCP should be applied to each specific operation separately.

The HACCP application should be reviewed and necessary changes made when any modification is made in any step. It is important when applying HACCP to be flexible where appropriate, given the context of the application taking into account, the nature and the size of the operation.

HACCP seven principles

- 1 Identify any hazards that must be prevented, eliminated or reduced to acceptable levels (hazard analysis);
- 2 Identify the critical control points at the step or steps at which control is essential to prevent or eliminate a hazard or to reduce it to acceptable levels;
- 3 Establish critical limits at critical control points which separate acceptability from unacceptability for the prevention, elimination or reduction of identified hazards;
- 4 Establish and implement effective monitoring procedures at critical control points;
- 5 Establish corrective actions when monitoring indicates that a critical control point is not under control:
- 6 Establish procedures, which shall be carried out regularly, to verify that the measures outlined in paragraphs 1 to 5 are working effectively;
- 7 Establish documents and records commensurate with the nature and size of the food business to demonstrate the effective application of the measures outlined in paragraphs 1 to 6.

D - Application of the seven principles to wholesale market management

It is recommended to proceed with the following activities in sequence.

1. HAZARD ANALYSIS

1.1. Assembly of a multidisciplinary team (HACCP team)

This team, which involves all persons concerned with the action to be taken, needs to include the whole range of specific knowledge and expertise appropriate to the action under consideration and the associated potential hazards and should also involve as much as possible the higher management levels.

Where necessary, the team may be assisted by specialists who will help it to solve its difficulties as regards assessment and control of critical points.

The team may include specialists:

- Who understand the biological, chemical or physical hazards connected with a particular product group;
- Who have responsibility for, or are closely involved with the action to be taken;
- Who have a working knowledge in that action, especially in terms of hygiene and equipment;
- Any other person with specialist knowledge of hygiene microbiology, or food technology.

One person may fulfil several of these roles, provided all relevant information is available to the team and is used to ensure that the system developed is reliable. Where expertise is not available in the establishment, advice should be obtained from other sources (consultancy, etc).

The scope of the HACCP plan should be identified. The scope should describe which segment of the food chain is involved, and the general classes of hazards to be addressed (biological, chemical and physical).

Checklist

Questions to ask:

Do we have or can we obtain the skills necessary to identify the hazards and controls?

Do we have a person with overall responsibility for the food safety program?

Is the person responsible trained in the requirements of the HACCP system?

Does this person have the authority to establish and maintain the program?

Are staff aware of the importance of food safety and hygiene?

Does our business have a training program?

Do staff know what to do, and who can make decisions if something goes wrong?

1.2. Description of the activities under the responsibility of the wholesale market management

As wholesale market management does not deal with or sells foodstuffs, this paragraph should apply to the different activities of the market management in its relationship with the different food businesses based on the site.

A full description of the activity should be drawn, with all the corresponding steps.

Checklist

Questions to ask:

What are the different steps linked with each activity and what are the associated risks?

Have all the steps been considered?

Have we missed any steps in the activity?

1.3. Identification of the tasks corresponding to each step

The HACCP team should also identify and define the different tasks to be taken at each step, with the possible interaction between these tasks and activities managed by the other food businesses on the wholesale market.

Checklist

Questions to ask:

Have we thought of all the possible tasks corresponding to each step?

Have we considered all food businesses concerned by the task performed?

Have we provided the appropriate information with the task performed?

1.4. Construction of a flow diagram (see appendix B.1)

Whatever the format chosen, all steps involved in the activity should be studied in sequence and presented in a detailed flow diagram together with sufficient technical data.

Types of data may include but are not limited to:

- Plan of working premises and ancillary premises,
- Equipment layout and characteristics,
- Sequence of all steps,
- Technical parameters of operations,
- Flow of foodstuffs (including potential cross-contamination),
- Segregation of clean and dirty areas (or high/low risk areas),

The following requirements are prerequisites to be integrated in the HACCP system:

- Cleaning and disinfection procedures,
- Hygienic environment of the establishment,
- Personnel routes and hygiene practices,
- Product storage and distribution conditions.

Checklist

Questions to ask:

Do we have set procedures for checking and approving each step?

Do we have a system for monitoring the quality of the action taken?

Do we have all the information we need to identify potential hazards?

1.5. On-site confirmation of flow diagram

After the flow diagram has been drawn up, the multidisciplinary team should confirm it on site during operating hours. Any observed deviation must result in an amendment of the original flow diagram to make it accurate.

Watch the process with a critical eye and with the flow diagram in your hand.

Checklist

Questions to ask:

Have any steps or other information been missed?

Do we actually do it the way the flow diagram shows?

1.6. Listing of hazards and control measures

<u>1.6.1. list all potential</u> biological, chemical or physical hazards that may be reasonably expected to occur at each step (Hazard has been defined in Article 3 (14) of Regulation (EC) No 178/2002 – see also glossary in this document).

The HACCP team should next conduct a hazard analysis to identify for the HACCP plan which hazards are of such a nature that their elimination or reduction to acceptable levels is essential to keep foodstuffs safe.

In conducting the hazard analysis, the following should be considered:

- The likely occurrence of hazards and severity of their adverse health effects;
- The qualitative and/or quantitative evaluation of the presence of hazards;

<u>1.6.2. consider and describe</u> what control measures, if any, exist which can be applied for each hazard.

Control measures are those actions and activities that can be used to prevent hazards, eliminate them or reduce their impact or occurrence to acceptable levels.

More than one control measure may be required to control an identified hazard and more than one hazard may be controlled by one control measure.

Control measures need to be supported by detailed procedures and specifications to ensure their effective implementation. For instance, detailed cleaning schedules used in compliance with the applicable Community rules.

Note:

First-time HACCP writers often identify too many hazards! This is a problem because the potential exists to dilute a processor's ability to focus efforts and control the truly significant hazards. The dilemma is deciding what is significant.

A hazard must be controlled if it is:

1) Reasonably likely to occur

And

2) If not properly controlled, it is likely to result as an unacceptable health risk to consumers.

In the case of hazards for which regulatory action levels, tolerances or other limits have been established for safety concerns (e.g., cleaning chemicals, pesticides...), an unacceptable health risk is the risk that the limit has been exceeded, not the mere presence of the substance at a detectable level. Therefore, if violation of an action level in that type of food is reasonably likely to occur, then the processor's hazard analysis should identify that hazard as one to be controlled through its HACCP system.

Checklist

Ouestions to ask:

Have we examined all sources of hazards?

Have we used diagrams of the premises and its surroundings to identify hazards?

Have we used the flow diagram to identify possible hazards in the processes involved?

Have we identified risks attached to the step itself, such as the potential for misuse or abuse (cleaning chemicals for instance?)

2. IDENTIFICATION OF CRITICAL CONTROL POINTS (CCPs)

The identification of a critical point for the control of a hazard requires a logical approach. Such an approach can be facilitated by the use of a decision tree (*see appendix B.2*).

However, other methods can be used by the team, according to their knowledge and experience.

For the application of the decision tree, each step identified in the flow diagram should be considered in sequence. At each step, the decision tree must be applied to each hazard that may be reasonably expected to occur or be introduced and each control measure identified. Application of the decision tree should be flexible, having consideration for the whole process in order to avoid, whenever possible, unnecessary critical points.

Training in the application of the decision tree is recommended.

The identification of critical control points has two consequences for the HACCP team which should then:

- Ensure that appropriate control measures are effectively designed and implemented. In particular, if a hazard has been identified at a step where control is necessary for foodstuff safety and no control measure exists at that step, or at any other, then the process should be modified at that step or at an earlier or later stage, to include a control measure,
- Establish and implement a monitoring system at each critical point.

Checklist

Questions to ask:

Have controls been identified for each hazard?

Do they effectively remove, or minimise the likelihood of each hazard occurring?

Can we alter the process where preventable measures don't exist?

Do staff understand what the CCP requirements are?

3. CRITICAL LIMITS AT CRITICAL CONTROL POINTS

Each control measure associated with a critical control point should give rise to the specification of critical limits.

Critical limits correspond to the extreme values acceptable with regard to foodstuff safety.

They separate acceptability from unacceptability. They are set for observable or measurable parameters which can demonstrate that the critical point is under control.

They should be based on substantiated evidence that the chosen values will result in process control.

Examples of such parameters include temperature, time, pH, moisture content, sensory parameters such as visual appearance, etc.

In some cases, to reduce the risk of exceeding a critical limit due to process variations, it may be necessary to specify more stringent levels (i.e. target levels) to assure that critical limits are observed.

Critical limits may be derived from a variety of sources. When not taken from regulatory standards or from guides of good hygiene practices, the team should ascertain their validity relative to the control of identified hazards at CCPs.

Checklist

Questions to ask:

Have we established limits for each critical control point?

Are we following the limits set down?

Are our measuring instruments sufficiently accurate?

Do our measurement systems meet recognised standards?

Has corrective action been decided on for each out-of-control condition?

Do we have a system for handling complaints?

Is the frequency of our monitoring and recording appropriate?

4. MONITORING PROCEDURES AT CRITICAL CONTROL POINTS

An essential part of HACCP based procedures is a program of observations or measurements performed at each critical point to ensure compliance with specified critical limits.

Observations or measurements must be able to detect loss of control at critical points and provide information in time for corrective action to be taken.

Where possible, process adjustments should be made when monitoring results indicate a trend towards loss of control at a CCP. The adjustments should be taken before a deviation occurs. Data derived from monitoring must be evaluated by a designated person with knowledge and authority to carry out corrective actions when indicated.

Observations or measurements can be made continuously or intermittently. When observations or measurements are not continuous, it is necessary to establish a frequency of observations or measurements which provides reliable information.

The program should describe the methods, the frequency of observations or measurements and the recording procedure and identify each critical point:

• Who will perform monitoring and checking?

- When is monitoring and checking performed?
- How is monitoring and checking performed?

Records associated with monitoring CCPs must be signed by the person(s) doing the monitoring and when records are verified by a responsible reviewing official(s) of the company.

5. CORRECTIVE ACTIONS

For each critical control point corrective actions have to be planned in advance by the HACCP team, so that they can be taken without hesitation when monitoring indicates a deviation from the critical limit.

Such corrective action should include:

- Proper identification of the person(s) responsible for the implementation of the corrective action,
- Description of means and action required to correct the observed deviation,
- Action to be taken when the process was out of control,
- Written record of measures taken indicating all relevant information (for example: date, time, type of action, actor and subsequent verification check).

Monitoring may indicate that preventive measures (checking equipment, checking the person in charge of the task, checking the efficacy of previous corrective measures, etc.) shall have to be taken if corrective actions for the same procedure have to be taken repeatedly.

6. VERIFICATION PROCEDURES

6.1. The HACCP team should specify the methods and procedures to be used for determining if the HACCP is working correctly. Methods for verification may include in particular random sampling and analysis, reinforced analysis or tests at selected critical points.

The frequency of verification should be sufficient to confirm that HACCP based procedures are working effectively. The frequency of verification shall depend on the characteristics of the wholesale market management (number of employees, nature of the foodstuffs...), the monitoring frequency, the accuracies of the employees, the number of deviations detected over time and the hazards involved.

Verification procedures include:

- Audits of HACCP and its records,
- Inspection of operations,
- Confirmation that CCPs are kept under control,
- Validation of critical limits,
- Review of deviations and product dispositions, corrective actions taken.

The frequency of verification will greatly influence the amount of recheck required in case a deviation exceeding the critical limits has been detected. Verification shall comprise all of the following elements, but not necessarily all at the same time:

- Check on the correctness of the records and analysis of deviations,
- Check on the person monitoring processing, storage and/or transport activities,

- Physical check on the process being monitored,
- Calibration of instruments used for monitoring.

Verification should be carried out by someone other than the person who is responsible for performing the monitoring and corrective actions. Where certain verification activities cannot be performed in house, verification should be performed on behalf of the business by external experts or qualified third parties.

<u>6.2. Where possible</u>, validation activities should include actions to confirm the efficacy of all elements of the HACCP plan. In case of change, it is necessary to review the system, to ensure that it is (or will be) still valid.

Where necessary, such a review must result in the amendment of the procedures laid down. The changes should be fully incorporated into the documentation and recordkeeping system in order to ensure that accurate up-to-date information is available.

7. DOCUMENTATION AND RECORD KEEPING

Efficient and accurate record keeping is essential to the application of a HACCP system.

HACCP procedures should be documented. Documentation and record keeping should be appropriate to the nature and size of the operation and sufficient to assist the business to verify that the HACCP controls are in place and being maintained. Documents and records should be kept for a sufficient time to allow the competent authority to audit the HACCP system. Documents should be signed by a responsible reviewing official of the company.

Documentation examples are:

- Hazard analysis;
- CCP determination;
- Critical limit determination;
- Modifications to the HACCP system.

Record examples are:

- CCP monitoring activities;
- Deviations and associated corrective actions;
- Verification activities.

A simple record-keeping system can be effective and easily communicated to employees.

It may be integrated into existing operations and may use existing paperwork.

Checklist

Questions to ask:

Do we have a satisfactory level of record keeping?

Do we file and store records safely?

Do we record and action critical control points?

Have we recorded the limits for each CCP?

Are our control measures properly recorded?

Are we monitoring and evaluating our methods?

Do we keep records of our calibrations?

Do we get independent checks of our program?

What measures do we take to check that our program is being carried out?

Do we keep records of our system checks?

An example of a HACCP worksheet for the development of a HACCP plan is to be found in appendix B.3. It concerns cold storage.

APPENDIX A

WHOLESALE MARKET MANAGEMENT

CLEANING AND DISINFECTION SCHEDULE

DISPLAY AND SELLING HALLS

Area	Cleaning product	Routine	Frequency	Health and Safety precautions	Person responsible (nominate)	Checked by (nominate)
Floor	Full name Agreement n°	All spillages should be dealt with immediately. At the end of the activity, sweep and wash with hot water and detergent.	·	Refer to product label and technical file (to be kept available when necessary)		
Walls: - up to m: - abovem:	Full name Agreement n° Full name Agreement n°	Wash with detergent, rinse with clean hot water and apply sanitizer (1) when necessary. Wash with hot water and detergent		Refer to product label and technical file (to be kept available when necessary)		
Ceiling	Full name Agreement n°	Dry or liquid cleaning according to the nature of surface		Refer to product label and technical file (to be kept available when necessary)		
Doors	Full name Agreement n°	Wash with hot water and detergent	Periodically (2)	Refer to product label and technical file (to be kept available when necessary)		
Windows	Full name Agreement n°	Wash with hot water and detergent	Periodically (2)	Refer to product label and technical file		

				(to be kept available when necessary)	
Sinks and/or wash basins	Full name Agreement n°	At the end of each day, scour, wash with hot	Daily	Refer to product label and technical file	
	8	water and detergent and rinse		(to be kept available when necessary)	
Lighting	Full name		Periodically	Refer to product label	
	Agreement n°		(2)	and technical file	
				(to be kept available when necessary)	
Ventilation			Monthly		
- Mechanical airflow		Vacuum clean.			
- Filters	Full name	Wash with hot water and	Monthly	Refer to product label	
	Agreement n°	detergent. Replace in		and technical file	
		position only when dry.		(to be kept available when necessary)	
Waste containers	Full name	Scrub with hot water and	Daily	Refer to product label	
	Agreement n°	detergent		and technical file	
				(to be kept available when necessary)	

^{(1) &}quot;Sanitizer" is a disinfectant which is suitable for use on food contact surfaces and should be non-toxic and non-tainting.

^{(2) &}quot;Periodically" means as necessary, and should relate to the build-up of dirt.

APPENDIX B.1

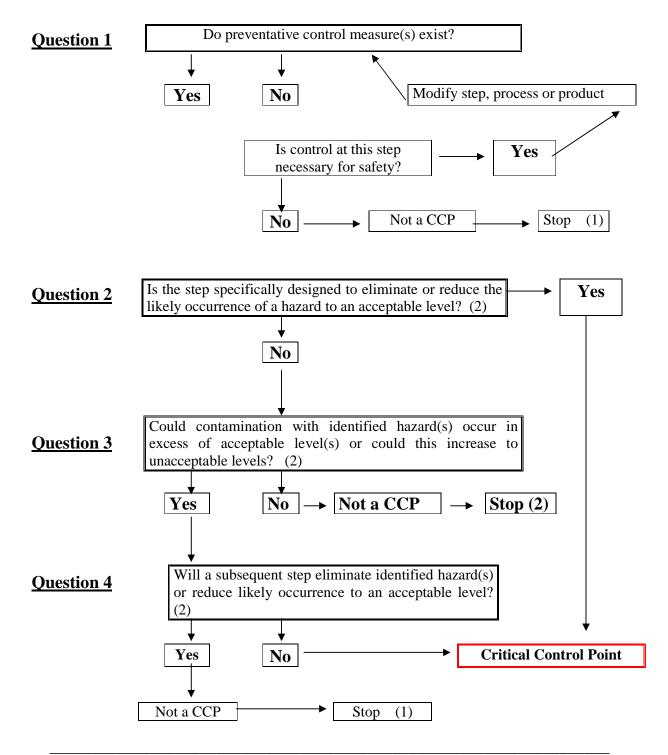
LOGIC SEQUENCE FOR THE APPLICATION OF HACCP BASED PROCEDURES BY WHOLESALE MARKET MANAGEMENT

1	Form a HACCP Team
2	Define the hygiene management system project
3	Construct flow diagram
4	On-site confirmation of flow diagram
5	List all potential Hazards
	Conduct a Hazard analysis
	Consider Control measures
6	Identify CCP's
7	Establish critical limits for each CCP
8	Establish a monitoring system for each CCP
	<i>U</i> 4
9	Establish corrective actions
10	Establish verification procedures
10	Establish verification procedures
11	Establish documentation and record keeping

APPENDIX B.2

WHOLESALE MARKET AUTHORITY EXAMPLE OF A DECISION TREE TO IDENTIFY CCP's

(Answer questions in sequence)



- (1) Proceed to the next identified hazard in the described process.
- (2) Acceptable and unacceptable levels need to be defined within the overall objectives in identifying the CCPs of HACCP plan

APPENDIX B.3

WHOLESALE MARKET MANAGEMENT EXAMPLE OF A HACCP WORKSHEET (Cold Storage)

1 Describe task for wholesale market management

Ensure that foodstuffs are kept:

- at temperatures suitable for the type of product;
- in accordance with EU Regulations relative to the type of product.

2 Diagram of procedures flow

			LIST		
Step	Hazard(s)	Control measure(s)	Monitoring procedure(s	Corrective action(s)	Record(s)
Refrigerated storage	<u>Cross-</u> <u>contamination</u>	Covered or wrapped foodstuffs to be stored separately from open foodstuffs	Visual checking	Reorganise layout to separate different foodstuffs types	Corrective action report
		Keep storage area clean	Hygienic condition of the storage area	Clean the storage area immediately	Corrective action report
	Growth of food poisoning bacteria	Storage temperature at 4°C or below	Monitor relevant refrigeration parameters (continuous or a regular intervals) (e.g. ai temperature, air velocity loading, product temperature)	t chiller where appropriate.	Temperature record sheet for chiller
		Storage area with good air circulation	Visual checking	Reorganize layout of storing	Corrective action report

Frozen storage	Growth of food poisoning bacteria	Temperature of freezer at – 18°C or below	Monitor relevant refrigeration parameters (continuous or at regular intervals) (e.g. air temperature, air velocity, loading, product temperature)	Adjust temperature or repair freezer where appropriate Monitoring frequency to be increased until it is assured that the process is under control.	Temperature record sheet for freezer
		Storage area with good air circulation	Visual checking	Reorganize layout of storing	Corrective action report

Verification

This should include the following:

- Validation of the freezing parameters;
- Calibration of measuring devices;
- Finally:
 - o Internal audit;
 - o Extrinsic audit;
 - o HACCP review.

GLOSSARY

- Clean seawater: natural, artificial or purified seawater or brackish water that does not contain micro-organisms, harmful substances or toxic marine plankton in quantities capable of directly or indirectly affecting the health quality of food.
- Cleaning schedule: a written document outlining how food premises are to be kept clean.
- Clean water: clean seawater and fresh water of a similar quality
- **Common areas:** areas used by one or more independent operators within a WM and managed by the WMA.
- **Competent authority:** means the central authority of a Member State competent to ensure compliance with the requirements of this Regulation or any other authority to which that central authority has delegated that competence; it shall also include, where appropriate, the corresponding authority of a third country.
- **Condensation:** the formation of water droplets as a result of the contact between warm moist air, such as steam, and a comparatively cooler surface.
- **Contamination:** the presence or introduction of a hazard. Introduction, in a media, of polluting and/or toxic elements (micro-organisms chemicals) susceptible to compromise its safety or wholesomeness.
- **Control measures:** the actions to be taken to remove an identified hazard or reduce it to a safe level.
- **Critical points:** steps at which hazards must be controlled to ensure that they are eliminated or reduced to a safe level.
- **Critical control point:** step in the preparation of the food which has to be carried out correctly to ensure that a hazard is removed or reduced to a safe level.
- **Cross contamination:** the transfer of a hazard from one food to another food. This may be by direct contact, by drip, by food handlers or by equipment and work surfaces.
- **Detergent:** a cleansing agent that differs from soap but can also emulsify oils and hold dirt in suspension.
- **Dirt trap:** any area which is capable of trapping dirt. These can be voids between pieces of equipment, cracks and joints in surfaces finishes, long pipe work runs. Dirt traps need to be eliminated or given special attention during cleaning.
- **Disinfectant:** a chemical used to kill micro-organisms and reduce levels of contamination on food equipment or in food premises. Disinfectants used must be suitable for use in food premises.
- **Disinfection:** the reduction in levels of contamination on food equipment or in food premises by the use of a disinfectant.
- **Electric fly killer:** equipment to control flies and other flying arthropods. Insects are attracted by the UV lamps and destroyed on a high voltage grid.
- **Final consumer:** the ultimate consumer of a foodstuff who will not use the food as part of any food business operation or activity.
- **Fly screen:** fine mesh screen fitted to windows or other openings to stop the entry of flies and other arthropods.

- **Food** (**foodstuff**): any substance or product, whether processed, partially processed or unprocessed, intended to be, or reasonably expected to be ingested by humans.
- Equivalent: in respect of different systems, capable of meeting the same objectives.
- **Establishment:** means any unit of a food business based on a wholesale market.
- Food business: any undertaking, whether for profit or not, and whether public or private, carrying out any of the activities related to any stage of production, processing and distribution of food.
- **Food business operator:** the natural or legal persons responsible for ensuring that the requirements of food law are met within the food business under their control.
- **Food contact surface:** any surface which comes, or may come, into contact with food, either directly or in such close proximity that it could contaminate the food if dirty (includes work surfaces, containers and equipment).
- Food handler: any person involved in a food business that handles food in the course of their work, or as part of their duties to any extent, whether the food is open or prewrapped.
- **Food hygiene (or hygiene):** the measures and conditions necessary to control hazards and to ensure fitness for human consumption of a foodstuff taking into account its intended use.
- **Food law:** means the laws, regulations and administrative provisions governing food in general, and food safety in particular, whether at Community or national level; it covers any stage of production, processing and distribution of food, and also of feed produced for, or fed to, food-producing animals (cf. Regulation (EC) N° 178/2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in terms of food safety).
- **Food pest:** animal life unwelcome in food premises. Especially arthropods, birds, rats, mice and other rodents capable of contaminating food directly or indirectly.
- Good practices: collection of principles to apply for the concerned processes, resulting in safe and healthy food, while taking into account economical, social and environmental sustainability.
- **HACCP** (Hazard Analysis Critical Control Point): a system which identifies, evaluates, and controls hazards which are significant for food safety.
- **HACCP plan:** a document prepared in accordance with the principles of HACCP to ensure control of hazards which are significant for food safety.
- **Hazard:** means a biological, chemical or physical agent in, or condition of, food or feed with the potential to cause an adverse health effect.
- **Hazard analysis:** The process of collecting and evaluating information on hazards and conditions leading to their presence to decide which are significant for food safety and therefore should be addressed in the HACCP plan.
- Hermetically sealed container: a leak proof container.
- **Impervious:** not permitting penetration or passage of a liquid. Impenetrable.
- **Induction training:** training given to new employees.
- **Intervening ventilated space:** enclosed area separating toilet compartments and food rooms which is mechanically or naturally ventilated to the external air.
- **Monitor:** the act of conducting a planned sequence of observations or measurements of control parameters to assess whether a CCP is under control.

- **Monitoring:** regular checks to ensure a system is working properly. Results of monitoring are usually recorded in writing.
- **Mould:** microscopic organism which grows in damp conditions on the surface of food and may penetrate the food.
- **Non-absorbent:** any material through which water cannot pass.
- **Open food:** food which is not in a wrapper or container which excludes the risk of contamination from the environment.
- **Packaging:** the placing of one or more wrapped foodstuffs in a second container, and the latter container itself.
- **Pathogen:** a micro-organism which may cause illness.
- **Perishable:** foods which spoil quickly or may be contaminated with bacteria which, if allowed to, will multiply and cause food spoilage and/or food poisoning.
- **Personal cleanliness:** measures taken by staff on himself to protect food from contamination.
- **Potable water:** water meeting the minimum requirements laid down in Council Directive 98/83/EC of 3 November 1998 on the quality of water intended for human consumption.
- **Private areas:** areas occupied by a WM operator with whom sole responsibility for management of the area rests.
- **Private water supply:** water not coming from the public mains.
- **Processed products:** foodstuffs resulting from the processing of unprocessed products. These products may contain ingredients that are necessary for their manufacture or to give them specific characteristics.
- **Processing:** any action that substantially alters the initial product including heating, smoking, curing, maturing, drying, marinating, extraction, extrusion or a combination of those processes.
- **Protective clothing:** clothing appropriate for the work carried out; should completely cover ordinary clothing.
- **Public areas:** areas used by all persons and managed by the wholesale market management.
- **Regularly/periodically:** means "as necessary" and should relate to the build up of dirt or the rate of deterioration and wear, and how it affects food safety.
- **Risk:** a function of the probability of an adverse health effect and the severity of that effect, consequential to a hazard.
- **Risk analysis:** a process consisting of three interconnected components: risk assessment, risk management and risk communication.
- **Risk assessment:** a scientifically based process consisting of four steps: hazard identification, hazard characterisation, exposure assessment and risk characterisation.
- **Risk communication:** the interactive exchange of information and opinions throughout the risk analysis process as regards hazards and risks, risk-related factors and risk perceptions, among risk assessors, risk managers, consumers, feed and food businesses, the academic community and other interested parties, including the explanation of risk assessment findings and the basis of risk management decisions.
- **Risk management:** the process, distinct from risk assessment, of weighing policy alternatives in consultation with interested parties, considering risk assessment and other legitimate factors, and, if need be, selecting appropriate prevention and control options.

- "Stages of production, processing and distribution": means any stage, including import, from and including the primary production of a food, up to and including its storage, transport, sale or supply to the final consumer and, where relevant, the importation, production, manufacture, storage, transport, distribution, sale and supply of feed.
- **Sterilised:** process killing all germs.
- **Traceability:** the ability to trace and follow a food, feed, food-producing animal or substance intended to be, or expected to be incorporated into a food or feed, through all stages of production, processing and distribution.
- **Unprocessed products:** foodstuffs that have not gone processing, and includes products that have been divided, parted, severed, sliced, boned, minced, skinned, ground, cut, cleaned, trimmed, husked, milled, chilled, frozen, deep-frozen or thawed.
- **Wrapping:** the placing of a foodstuff in a wrapper or container in direct contact with the foodstuff concerned, and the wrapper or container itself.
- Waste storage bin: bins or containers used to store waste outside food preparation rooms whilst awaiting removal from premises.
- Waste transfer bin: bins, sacks or other containers used for temporary collection of waste in food preparation rooms.
- Wholesaler: intermediate in the distribution chain that buys the product in mass quantity from the production and sells it in smaller quantities to distributors or retailers.
- Wholesale market: means a food business that includes several separate units which share common installations and sections where foodstuffs are sold to food business operators.
- Wholesale market management: a food business operator (private or public) with specific responsibility for overall management and organisation of a wholesale market within the confines of which independent food businesses operate.
- **WM:** abbreviation for wholesale market.

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