

**SEA FISH INDUSTRY  
AUTHORITY**

**SEAFISH**

# **Guidelines for the handling of chilled fish by retailers**

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## **NOTES**

# 1 Purpose and scope of the Guidelines

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***High quality standards and attractive presentation sell fish. These Guidelines are to help retailers achieve high quality standards.***

The Guidelines cover the technical aspects of fish purchase, handling and selling, and of premises, vehicles and equipment, and apply to the trades of the traditional fishmonger, the supermarket, the mobile van operator and the market stall operator. Necessary background information is given and detailed recommendations are made.

The Guidelines cover chilled fish which has not been pre-packed for retail sale, including wet fish, smoked fish, cooked fish and shellfish. Guidelines for handling CAP fish, which differs in its handling requirements, are given separately in the *Seafish Guidelines for the handling of fish packed in a controlled atmosphere*. It is recommended that retailers handling other pre-packed fish, including vacuum packed and overwrapped fish, follow the CAP Guidelines.

The Guidelines were written by Seafish together with a panel of representatives from various sections of the trade and including Environmental Health and Trading Standards Officers and Torry Research Station. A list of participating organisations is given in Appendix I, and their contribution is gratefully acknowledged.

The recommendations made are based on detailed study of the trade by Seafish plus the wide ranging experience of the panel. The recommendations are to advise the retailer. They provide an interpretation of environmental health and trading standards legislation, but they do not absolve the retailer from compliance with the law.

Sections of legislation have been included and these are reproduced with the permission of the Controller of Her Majesty's Stationery Office.

## 2 Using the Guidelines

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This document is intended to be used as a reference manual by both experienced retailers and new entrants to the trade alike.

The background information considered necessary for successful retailing is given in **Section 3**. This section explains the importance of good practice for the profitability of the trade, and explains the effects of fish spoilage and its control. It summarises the wide range of fish available, and their characteristics, and explains the health and hygiene aspects of fish. It also summarises the law in relation to the handling and sale of fish, and gives other sources of information and assistance for the retailer.

This is followed by detailed series of recommendations covering quality standards **Section 4**, purchasing fish **Section 5**, premises, vehicles and equipment **Section 6**, practices from fish reception through to sales **Section 7**, and cleaning and hygiene **Section 8**. Explanation of the recommendations is given, and the relevant aspects of environmental health, trading standards and fisheries legislation are detailed in each section. In sections 4 to 8 the recommendations are printed on the right hand pages of the document and relevant extracts from the legislation are printed opposite them on the left hand pages. Important parts of the legislation are repeated where necessary. Sections 6 and 7, covering facilities and practices, are sub-divided to cover the separate aspects of the trade for mongers operating in shops (including supermarkets), and mongers operating mobile shops and market stalls. The remaining sections are for all types of fishmonger.

This document is intended for reference. It is not a training manual, nor does it read like a novel. It is not expected that everyone in the trade will have full knowledge of, or will be working to the letter of these Guidelines. However, it is recommended that every person in the trade is familiar with the background information given, plus those aspects of the detailed recommendations relevant to their particular job. The Guidelines have particular value to new entrants to the trade, and to those considering updating or extending their business. Experienced mongers are advised to check their own standards against these recommendations. Companies may choose to base their own staff instructions on these Guidelines and to copy the relevant sections of this document.



# 3 Background information for retailers

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- 3.1 The need for good practice
- 3.2 The perishability of fish
- 3.3 Methods of slowing spoilage
- 3.4 Ice and refrigeration
- 3.5 The assessment of freshness
- 3.6 Fish types, characteristics and availability
- 3.7 Fish and health
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## 3 Background information for retailers

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### 3.1 The need for good practice

***Fish is one of the most perishable of foods and freshness is rapidly lost, even when stored under chilled conditions. It is important that fish is consumed in as fresh a state as possible so that the sweet and desirable flavours are retained. Once those desirable flavours are lost neutral flavours remain, and on further storage sour and then objectionable bitter flavours develop. The acceptability of fish to the consumer decreases markedly when sour flavours develop.***

Studies have shown that there are considerable problems within the trade. Much of the trade has been in decline for many years, although some sections are flourishing. In general those sections that are flourishing have adopted good practice.

During the quarter century from 1960 the consumption of chilled fish in the UK declined by about a quarter, and the number of traditional fishmonger businesses declined by over a half. At the end of that period wet fish was eaten largely by people over 50 years old, and not by youngsters. On the other hand sales of frozen fish were thriving to young and old alike. Compared to other foods the proportion of fish sold in the chilled form was small.

Poor temperature control of wet fish from capture through to retail sale has resulted in unnecessary loss in freshness. Seafish studies in the mid 1980's showed that typical fish temperatures in summer ranged from 5°C at the port to 11°C on retail display, with maximum temperatures in excess of 20°C. This resulted in there being more sour fish on sale than sweet fish, whilst the bulk of fish sold had neutral flavours. The consumer buying fish from the retailer has experienced the accumulated result of this poor temperature control throughout the distribution chain.

The aims must be to improve the quality and reverse the decline.

On the positive side the studies showed that in the mid 1980's the number of mobile van trade outlets was rivalling that of the static fishmongers, and the sales of chilled fish in supermarkets were growing rapidly.

***Throughout the trade there are enormous differences in the turnover, and hence profitability, between individual outlets.***

It is accepted that in particular the high street fishmonger faces many problems, such as the burden of rates and the trend towards convenience shopping, but even in this section of the trade there are outlets with a turnover well above the average and high profitability.

***The studies have shown that outlets with a high turnover are in general those that present an attractive "image" and handle their fish well, whilst those with a low turnover do not and that a monger's experience in the trade does not guarantee good presentation and handling.***

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## 3.2 The perishability of fish

After death fish spoils and gradually loses its appeal as a food. The causes of spoilage are **enzymes** and **bacteria**, and in addition oily fish become rancid.

Enzymes are chemical substances which contribute to the life of living tissue, but which continue to act without control after death of the animal resulting in spoilage.

Bacteria are minute living organisms found throughout nature, some of which can feed and rapidly multiply on fish tissue and result in spoilage.

The oil in oily fish reacts with oxygen in the atmosphere to become rancid.

Soon after death fish stiffen in rigor mortis, caused by enzymes. This passes and the fish softens, and if tasted the flavours will be sweet and typical of the species, i.e. haddock will taste different to cod. Further enzymic action results in the loss of these desirable flavours. Meanwhile bacteria found on the flesh and in the guts of the fish, and from sources of contamination, multiply and invade the fish flesh. The bacterial growth results in undesirable sour and eventually bitter flavours, the flesh softens further and a yellow slime develops on the surface.

***Once bacterial growth has become established sour flavours develop and the acceptability of the fish to the consumer is rapidly lost.***

The fish purchased by retailers has already undergone spoilage to varying degrees since capture, cutting into the period allowable before retail sale.

Some species spoil faster than others, for example whiting spoil faster than plaice, and small fish tend to spoil faster than large fish. Shellfish spoil extremely rapidly, partly because they are small, but also because it is their nature.

The natural or "intrinsic" condition of fish at the time of capture is also important. Fish are in poor condition after spawning and will spoil rapidly. Fish which have been feeding heavily will spoil rapidly, for example herring with full guts can deteriorate within hours, as indicated by burst bellies. Oily fish with a seasonally high oil content spoil rapidly. Crustacea periodically shed their shells in order to grow, and remain in very poor condition for a period after moulting.

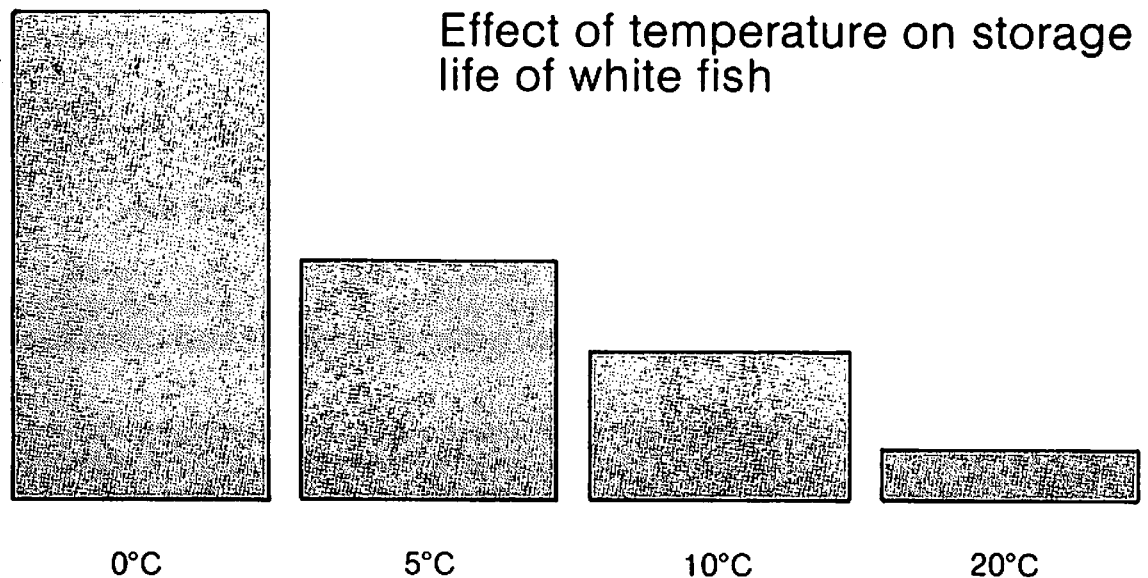
Cooked or otherwise preserved fish continue to spoil, although different processes and rates of spoilage are involved. Cooked fish is prone to re-contamination by bacteria after cooking, and this is of particular concern if it is then consumed without further cooking.

Frozen fish is subject to chemical changes and dehydration during storage with resulting toughening of texture and flavour changes including the development of a distinctive and undesirable cold storage flavour.

Even live shellfish deteriorate during storage, and deterioration prior to their death can result in flavour changes similar to those described above.

### 3.3 Methods of slowing spoilage

***The simplest and most effective means of slowing spoilage is to chill the fish close to 0°C. Any increase in temperature will increase the spoilage rate and reduce the storage life.***



***In practice, control of temperature to the ideal of exactly 0°C is difficult to achieve, and thus an allowable fish temperature range of 0°C to +4°C is specified in these Guidelines.***

The exception to this rule is the storage of live shellfish, which generally need to be held in moist conditions at temperatures of +2°C to +8°C. These shellfish are subject to stress, so extremes of temperature (including direct contact with ice), rapid changes of temperature, immersion in fresh water and other physical shocks can be harmful. Valuable species can be held in tanks of aerated sea water.

Other means of controlling spoilage of chilled fish include CAP and vacuum packing, cooking, marinating, salting and drying. These processes either inhibit the growth of bacteria or, in the case of cooking, kill off the bacteria already present. For all of these processes, apart from the strongest of marinating, salting and drying, it remains vital to chill the product.

Nowadays smoking, with the exception of hot smoking which involves cooking, cannot be considered an effective means of controlling spoilage as the degree of salting, drying and smoke application are small. Unfortunately smoking has been used as a means of disguising poor quality fish. This merely produces poor quality smoked fish and potentially harms the market for high quality smoked fish.

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Freezing fish greatly extends storage life by halting bacterial and enzymic spoilage, but some fish quality is lost during the freezing process, particularly if the fish is frozen slowly as in a cold store or domestic freezer. Because of the quality loss there is no point in freezing fish for a short period of storage, when iced storage is preferable. Commercial freezing equipment operates at extremely low temperatures with either a continuous blast of cold air over the fish or direct contact between the fish and the freezing equipment.

***Frozen fish should be stored at a temperature of -18°C or lower to minimise deterioration during storage.***

### **3.4 Ice and refrigeration**

***The liberal use of ice is the best means of chilling wet fish.***

Ice has a remarkable cooling capacity and is in effect pre-set to the ideal temperature of 0°C. Ice is safe, cheap and easy to use. Its visible presence ensures that the fish is being chilled. Its melt water keeps the fish moist, washed and visually attractive.

However most fishmongers do not use ice correctly. A thin bed of ice will not cool a deep pile of fish above it. During storage ice should be packed all around the fish, with paper or polythene sheets to protect fillets. For display a deep bed of ice is required plus ice on top of the fish which should be replenished as it melts.

Reliable small ice making machines suitable for fishmongers are now readily available. A type which produces small pieces of ice, such as flake ice, is preferable to one which produces larger cubes as the ice needs to melt readily in order to chill the fish.

Smoked fish and cooked fish, which can become washed-out by melt water, can be laid on a tray or sheet on a bed of ice. Similarly live shellfish can be chilled by ice but without direct contact.

In comparison it is extremely difficult for a refrigeration system to cool fish down close to 0°C without running the risk of slowly freezing the fish, with harmful results.

***Refrigeration is best used in support of ice, to reduce the loss of ice, with the temperature set a couple of degrees above zero to reduce the risk of freezing.***

Refrigerated displays have particular application for smoked fish, shellfish and other speciality products. Various types of display are available, and those which chill by the circulation of cold air are preferable to those which chill by direct contact with a refrigerated surface as in practice the latter are more likely to slowly freeze the fish.

***Every fishmonger needs a thermometer to check that the fish is being effectively chilled.***

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### 3.5 The assessment of freshness

The consumer clearly knows what he or she likes and dislikes, but to accurately or scientifically assess and specify the freshness of fish is extremely difficult. Quality specifications are used only by large processors and large buyers such as supermarket chains with specialist staff. This difficulty in measuring freshness undoubtedly contributes to the quality problem.

Most people in the trade rely on overall changes in the appearance and smell of the fish when making freshness judgements. This has obvious limitations of accuracy and is difficult to apply to fillets, many shellfish and other products. Scientific methods have been developed which accurately measure certain chemical or physical properties of the fish but these properties are themselves not very good indicators of freshness.

Refinement of the methods used by the trade led to the development of the Torry scoring system. Using the system a panel of trained staff assess the subtle changes in appearance, texture, odour and flavour that occur during spoilage, to accurately assess freshness. The system can also be used for frozen fish and smoked fish. However, considerable training and practice are required to use the system. A further problem is that Torry scoring systems have not been developed for some species of finfish and most shellfish.

Hospitals have been using Seafish purchase specifications based on the Torry scoring system for many years. These are backed up by the assessment of samples by the *Seafish Advisory And Inspection Service*. The result is that the quality of fish supplied to hospitals has improved whilst the cost has remained competitive.

Whilst Seafish and large commercial organisations need to use the Torry system as a reference and in specifications, it is accepted that the bulk of the trade will have to continue relying on the traditional methods. But as the Torry systems grew out of the traditional methods it is possible to link the two.

Appendix II, *The assessment of freshness* gives details of the Torry scoring system together with a much simplified version used in these Guidelines, based on the traditional methods. The simple system specifies only 3 levels of freshness:

**Good (Desirable) - Fish has sweet and characteristic flavours**

**Medium (Acceptable)- Fish has neutral flavours**

**Poor (Unacceptable) - Fish has sour, bitter, cold storage or rancid flavours.**

Changes in the appearance, odour and behaviour of the fish are described which correspond to these changes in flavour. The limitations of the simple system must be accepted. The satisfaction of the consumer will depend largely on the eating qualities of the fish which are only predicted by this simple assessment.

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## 3.6 Fish types, characteristics and availability

A wide range of fish is landed in the UK and is processed into an even wider range of products. Nowadays this is added to by exotic imported species, often from warm waters.

***A wide range of species and products adds greatly to the attractiveness and sales appeal of a fishmonger's display.***

Many fish are seasonal in their supply or best eaten at certain times of year, depending on the particular fishing ground. This is especially true for shellfish and oily fish but also applies to many white fish. Retailers should be aware of the periods when fish are at their peak and when it may be preferable to offer an alternative variety.

It is unlikely that any but the largest of suppliers can consistently provide the required variety of fish at the necessary quality. Merchants at individual ports offer a range depending upon landings, although some also import fish from other ports or from abroad. Many ports offer a direct delivery service to the retailer. Wholesale merchants, dotted around the UK and grouped at markets in the major cities, obtain supplies from throughout the UK and from abroad and thus may also experience some variation in quality.

***The retailer should be familiar with the range of fish available and their characteristics.***

Fish are broadly classified into **finfish** and **shellfish**. Finfish are broadly divided into **white fish** and **oily fish**, and white fish are further sub-divided into **round fish**, **flatfish** and **cartilaginous** fish (mainly sharks and rays) which have few and soft bones. Shellfish are broadly divided into **crustacea** (crabs, shrimps, etc.) which are generally mobile creatures with segmented shells with flexible joints, **molluscs** (whelks, mussels, etc.) which are generally less mobile with one or two piece shells, and **cephalopods** (octopus, squids, etc.) which have a single internal or no shell. Other common classifications are **demersal** fish, those which stay close to the sea bed (most whitefish and shellfish), and **pelagic** fish, those which swim mid-water (most oily fish and squids).

The common species, their classifications and some comment on their characteristics together with the common range of products, are tabulated in Appendix III, *Fish classification, names, characteristics and products*.

Whitefish have a relatively long storage life, typically remaining acceptable for about 11 days on ice between capture and consumption. Flatfish tend to have a longer storage life than round fish.

The common oily fish, herring and mackerel, have a relatively short storage life which is highly dependent upon their variable oil content. Typically they remain acceptable for 4 to 7 days on ice after capture. Larger species such as salmon and tuna have longer storage lives.

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The storage lives of shellfish species vary considerably but are often extremely short. Most crustacea need to be cooked on landing, or even on the fishing vessel in the case of small shrimp. A common exception to this rule is scampi which typically can remain acceptable for 4 to 5 days on ice after capture. The chilled storage lives of the cooked products also vary considerably, but crab meat for example typically remains acceptable for only 3 days. Molluscs need to be cooked on landing, or are distributed live. A common exception to this rule is scallop meat which can typically remain acceptable for up to 9 days on ice after capture. Cephalopods also have a relatively long storage life, typically remaining acceptable for 8 to 10 days on ice after capture.

Frozen fish cannot be kept indefinitely and storage life depends on the species, product form, method of packing and storage temperature. A total storage life of 6 months can be obtained with good quality quick-frozen white fish stored at  $-18^{\circ}\text{C}$  or lower, but fatty fish and many shellfish have a shorter life because undesirable rancid flavours develop after 3 to 4 months.

### **3.7 Fish and health**

***All types of fish are highly nutritious.***

Fish contains many essential vitamins and minerals and is high in protein and low in carbohydrate. Whitefish and most shellfish are low in fat, which makes them excellent food for slimmers. The fat in oily fish is the unsaturated type not considered harmful in respect of heart disease. Furthermore, recent research has shown that fish oils contain ingredients which help combat heart disease.

***The regular consumption of fish can reduce the chances of heart disease.***

Good standards of hygiene are essential when handling any food. Wet finfish is rarely a cause of food poisoning as the fish has to be obviously spoilt beyond a level at which it would be consumed before it becomes a hazard. A possible exception is the occasional development of *scombrotoxin* during poor storage of oily fish. This causes an allergic type reaction in humans. However, storage at  $0^{\circ}\text{C}$  to  $+4^{\circ}\text{C}$  prevents development of the toxin.

Of more concern is the handling of cooked fish, largely shellfish and hot smoked finfish, which like any other pre-cooked food can become contaminated after the initial cooking and which may then be eaten without the further cooking necessary to decontaminate them.

***Particular care must be taken to prevent the contamination of all forms of cooked fish.***

Of further concern is the cleanliness of certain types of shellfish. Filter feeding bivalve molluscs, such as mussels, cockles and oysters can be harvested from waters polluted by sewage. The bacteria and viruses present will accumulate in these molluscs, which if eaten without thorough cooking can result in serious illness. A period of purification under controlled conditions in clean water removes the bacteria.



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Certain polluted areas of the coast are placed under closure orders such that molluscs from these areas have to be adequately purified or heat treated, but it remains possible to buy untreated molluscs from polluted areas.

***Particular care must be taken to ensure that bivalve molluscs come from unpolluted areas or have been adequately purified or heat treated.***

These molluscs can also accumulate deadly *paralytic shellfish poisoning* toxin from *dynoflagellate* plankton which occasionally bloom in certain areas. Fortunately this rarely occurs in UK waters. For additional safety UK waters are monitored for the toxin and the landing of these molluscs prohibited should it proliferate.

For some fish products, as with many other foods, there is a slight chance under certain circumstances of the production of deadly toxin by the bacteria *Clostridium botulinum*. Again however, storage at 0°C to +4°C prevents the development of the toxin.

### 3.8 Fish and the law

Legislation concerning the handling and sale of fish falls into two main categories: firstly to protect the health of the public, secondly to ensure fair trading. There is also legislation concerning the conservation of fish stocks, which applies primarily to the fisherman but some of which applies directly to the retailer. In addition the retailer is subject to general legislation concerning employment protection, shops, offices, and railway premises, health and safety at work, taxation and liability, etc.

The major public health acts and regulations for England and Wales are:

***The Food Act 1984***: this act concerns the composition and labelling of food, food unfit for human consumption, hygiene, registration of premises and licensing of vehicles, control of food premises, cleansing of shellfish, establishment and regulation of markets, sale of food by hawkers and the registration and control of hawkers.

***The Food Hygiene (General) Regulations 1970***: these regulations concern standards of hygiene, premises and equipment, and practices of staff.

***Food Hygiene (Market Stalls and Delivery Vehicles) Regulations 1966 (amended by SI 1966 No. 1487)***: these regulations concern standards of hygiene, practices of staff, temperature control and facilities.

***Public Health (Shellfish) Regulations 1934 (amended by SI 1948 No. 1120)***: these regulations concern the control of shellfish beds and the treatment of shellfish from those beds.

***The Washing Facilities Regulations 1964***: these regulations concern the provision of washing facilities for employees.

***The Sanitary Conveniences Regulations 1964***: these regulations concern the provision of toilet facilities for employees.

***The Materials and Articles in Contact with Food Regulations 1978***: these regulations concern the quality and description of materials and articles intended to come into contact with food.

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The major fair trading acts and regulations for England and Wales are:

**The Food Act 1984:** as above.

**Weights and Measures Act 1985:** this act concerns the statement of net weight and the approval of weighing equipment.

**The Trade Descriptions Acts 1968, 1980:** these acts concern the misdescription of goods, services and prices.

**Food Labelling Regulations 1984:** these regulations concern misleading presentation, mandatory names, pack dating and labelling.

**The Price Marking (Meat and Fish) Order 1974:** this order concerns the requirement for price marking.

The major fish conservation acts relevant are:

**Sea Fish (Conservation) Act 1967 (amended by Sea Fisheries Act 1960, Fisheries Limits Act 1976, Fisheries Act 1981):** these acts concern the landing and sale of undersized fish.

**Sea Fisheries (Shellfish) Acts 1967, 1973:** these acts concern the sale of oysters out of season and the landing and sale of berried and soft shelled crabs.

Different acts and regulations apply to Scotland and Northern Ireland but their content is similar.

In general the public health laws are enforced by Environmental Health Officers, and the fair trading laws by Trading Standards Officers, but there is some regional variation. These officers are employed by local authorities. Local authorities can establish byelaws regarding registration and the operation of markets. In addition the officers of the Health And Safety Executive, a central government organisation, have a role regarding public safety.

Much of the legislation is imprecise, and in practice its interpretation by individual authorities or officers is significant. Trading Standards Officers are coordinated nationally by LACOTS (*Local Authorities Co-ordinating Body on Trading Standards*), which operates a *policy of home authority*. Under this policy, matters concerning the widespread distribution of goods are often referred back to the authority from where the goods came. Environmental Health Officers are less positively linked to any central body, working for District local authorities which are autonomous in nature.

Because most fish has to be thoroughly spoilt before it becomes a health hazard, the public health laws have little effect on fish quality at the higher levels of quality acceptable to the consumer. However a retailer of **poor** quality fish risks prosecution under fair trading law which expects the product to meet the quality demanded.

**To satisfy the consumer the retailer must supply fish of far higher quality than the minimum required by public health standards.**

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### **3.9 Other sources of information and assistance**

A list of further reading useful for fishmongers is given in Appendix IV *Bibliography*.

Retailers are advised to seek further advice, particularly when planning new or modified premises, vehicles or equipment. New entrants to the trade are advised to undergo training.

Advice on matters of environmental health and trading standards can be obtained from local authorities.

Advice on technical matters can be obtained from:

Ministry of Agriculture, Fisheries and Food  
Torry Research Station  
P O Box 31  
135 Abbey Road  
Aberdeen AB9 8DG  
Telephone: 0224 877071  
Telex: 739719

Advice and assistance on technical matters, fish supply, sales promotion and training can be obtained from:

Sea Fish Industry Authority  
Quality Assurance, Market Development or Sales Development Sections  
Sea Fisheries House  
10 Young Street  
Edinburgh EH2 4JQ  
Telephone: 031 225 2515  
Telex: 727225

Sea Fish Industry Authority  
Fisheries Training Centre  
St Andrew's Dock  
Hull HU3 4QE  
Telephone: 0482 27837  
Telex: 597261

In addition there are local Seafish Quality Assurance and Sales Development Officers distributed around the UK who can be contacted via the Edinburgh Office.

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***All fishmongers are urged to join a trade association.***

Associations exist for all types of fishmonger:

National Federation of Fishmongers Ltd.  
34 St. Margarets Road  
Ruislip  
Middlesex HA4 7NY  
Telephone: 08956 38114

Grimsby Mobile Fish Retailers Association  
c/o Ocean Pride Fisheries  
Wharnccliffe Road  
Fish Docks  
Grimsby  
South Humberside DN31 3QJ  
Telephone: 0472 40373

British Retailers Association ..... (for supermarkets)  
Commonwealth House  
1-19 New Oxford Street  
London WC1A 1PA  
Telephone: 01 404 0955

## 4 Recommendations for fish quality standards

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- 4.1 The importance of customer satisfaction
- 4.2 Quality of presentation
- 4.3 A policy for quality
  - 4.3.1 Setting standards for fish quality
  - 4.3.2 Control of fish quality
- 4.4 Fish quality standards
  - 4.4.1 Freshness quality
  - 4.4.2 Freedom from blemishes
  - 4.4.3 Intrinsic quality
  - 4.4.4 Freedom from worms and other parasites
  - 4.4.5 Freedom from harmful additives
- 4.5 Fish approaching the minimum freshness standard
  - 4.5.1. A flexible approach to selling
  - 4.5.2 Disposal of poor quality fish



## 4 Recommendations for fish quality standards

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### 4.1 The importance of customer satisfaction

***The purpose of quality standards is to ensure that the consumer can depend upon the retailer to supply fish of satisfactory quality.***

The customer has many alternatives to purchasing chilled fish. To survive, the retailer must supply fish of acceptable quality. To thrive, the retailer must establish a reputation for supplying fish of good quality. One bad fish can have a lasting effect on the consumer.

### 4.2 Quality of presentation

***The cleanliness and attractiveness of the outlet and the product, and the service provided by the staff, contribute to the perceived quality of the product.***

The customer is aware that a retailer with clean and attractive premises, an attractive display, and helpful and knowledgeable staff, is likely to provide good quality fish.

### 4.3 A policy for fish quality

***The retailer must consider and establish a policy for fish quality. The policy must set standards for fish quality and establish means of achieving those standards.***

#### 4.3.1 SETTING STANDARDS FOR FISH QUALITY

***The standards must ensure that the quality of the fish remains satisfactory on consumption. Loss of fish quality will inevitably occur during retail storage and display and during handling by the consumer. The standards set for the quality of the fish supplied to the retailer must account for these losses.***

The retail quality loss will vary with the type of outlet, dependent upon the means and time periods of storage and display, but is minimised by effective chilling and rapid turnover.

The further quality loss during transport and storage by the consumer is beyond the control of the retailer, although it is in the retailer's own interest to advise the consumer. The retailer must make an allowance for **reasonable** behaviour on the part of the consumer.

The temperatures of domestic refrigerators vary greatly but are typically about 5°C. It is recommended that the allowance for handling by the consumer is equivalent to 24 hours storage at 5°C.

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#### **4.4 Food Act 1984**

##### **Part I**

##### *Composition and labelling of food*

2.-(1) If a person sells to the purchaser's prejudice any food which is not –  
a) of the nature, or  
b) of the substance, or  
c) of the quality,  
of the food demanded by the purchaser, he is guilty of an offence, subject to section 3.

##### *Food unfit for human consumption*

8.-(1) A person who –  
a) sells or offers or exposes for sale, or has in his possession for the purpose of sale or of preparation for sale, or  
b) deposits with, or consigns to, any person for the purpose of sale,  
any food intended for, but unfit for, human consumption is guilty of an offence.

(2) Where food of which an offence under paragraph (a) of subsection (1) has been committed was sold to the offender by some other person that person is also guilty of an offence.



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#### 4.3.2 Control of fish quality

***The retailer must check the quality of fish supplied and continue to monitor its quality and the conditions of retail storage and display to ensure that no fish of unacceptable quality is sold.***

A schedule of fish quality assessment and temperature measurement should be established to ensure that fish quality remains satisfactory and is not deteriorating rapidly.

Stock control should ensure that batches of fish are not mixed and that the retailer is aware of the condition of batches of unsold fish.

### 4.4 Fish quality standards

#### 4.4.1 FRESHNESS QUALITY

***Using the definitions of freshness quality given in Appendix II fish sold should preferably be of good quality, the sale of medium quality fish is acceptable, but fish of poor quality must not be sold.***

When consumed it is desirable that the fish retains the sweet flavours characteristic of the species. Neutral flavours are acceptable, but sour, bitter, rancid or strong cold storage flavours are unacceptable.

The categories of freshness quality defined in Appendix II incorporate an allowance for handling by the consumer. Fish sold in these categories should retain the corresponding eating qualities when consumed.

#### 4.4.2 FREEDOM FROM BLEMISHES

***Bruises, blood clots and other localised discolouration which materially affect the appearance of the fish or eating quality should be absent.***

***Skinned fish should have no more than 10 sq cm of skin per 3.2 kg (7lb) unit.***

***Fillets should have no more than 15 sq cm of belly lining per 3.2 kg (7lb) unit.***

***Fillets should be free of bones except pin bones and, for certain oily fish, lateral bones.***

***Fillets should be free of fins except that dorsal fins are permitted on unskinned block fillets.***

***Fillets should not contain excessive amounts of belly flap.***

***Fillets should not gape excessively or be ragged or exhibit abnormal textural faults.***

***Whole fish should not have burst bellies.***

***Gutted fish and split fish should be free of gut pieces.***

#### 4.4.3 Sea Fisheries (Shellfish) Acts 1967, 1973

##### *Oysters not to be sold between certain dates*

16.-(1) Subject to subsection (2) of this section, any person who between the 14th May in any year and the following 4th August sells, exposes for sale, buys for sale or consigns to any person for the purpose of sale, any description of oysters shall be guilty of an offence and liable on summary conviction to a fine not exceeding (level 1 on the standard scale) and, in any case, to forfeit the oysters exposed for sale, bought for sale or consigned to any person for the purpose of sale, in contravention of this subsection.

(2) A person shall not be guilty of an offence under this section if he satisfies the court that oysters alleged to have been sold, exposed for sale, bought for sale or consigned to any person for the purpose of sale –

- (a) were originally taken within the waters of a foreign state, or
- (b) were preserved in tins or otherwise cured, or
- (c) were intended for the purpose of oyster cultivation within the same district in which the oysters were taken, or
- (d) were taken from any place for cultivation with the consent of the appropriate Minister or
- (e) were Pacific or Japanese oysters (*Crassostrea gigas*), Portuguese oysters (*Crassostrea angulata*) or other members of the genus *Crassostrea*.

##### *Taking and sale of certain crabs prohibited*

17.-(1) Subject to subsection (2) of this section, any person who takes, has in his possession, sells, exposes for sale, buys for sale, or consigns to any person for the purpose of sale, –

- (a) any edible crab carrying any spawn attached to the tail or other exterior part of the crab, or
- (b) any edible crab which has recently cast its shell, shall be guilty of an offence.

(2) A person shall not be guilty of an offence under subsection (1) of this section if he satisfies the court that the edible crabs found in his possession or alleged to have been sold, exposed for sale, bought for sale, or consigned to any person for the purpose of sale, were intended for bait for fishing.

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***Smoked fish should be free from soot or smut marks, salt encrustation and mould growth.***

***Kippers and hot smoked gutted fish should be free of gut pieces and swim bladder, and of kidney blood along the backbone.***

***The shells of shellfish should be intact with no cracks.***

***The shells of shellfish should be clean and should not be heavily encrusted with barnacles.***

Processors and merchants should not supply fish with these blemishes. Certain blemishes can be corrected by the retailer, but otherwise blemished fish must not be sold.

Barnacles, weed and mud on the shells of shellfish are a source of bacterial contamination and can also mask the underlying (and possibly fresher) odours of the shellfish. Machinery is available to enable processors to scrub the barnacles from molluscs.

#### **4.4.3 INTRINSIC QUALITY**

***Fish should not be in obviously poor condition as a result of being 'spent', or spawning in the case of certain molluscan shellfish, or having recently moulted in the case of certain crustacean shellfish, or being starved or diseased.***

***It is illegal to sell berried crabs or soft shelled crabs.***

***It is illegal to sell native oysters landed from public grounds out of season.***

***It is illegal to sell many species of fish below a minimum size.***

***Fish should be free of abnormal odours or flavours such as 'weedy' or 'diesel' flavours occurring in fish from certain grounds at certain seasons.***

***Fish should be free of contaminants such as heavy metals and hydrocarbons. Molluscan shellfish in particular should be free of bacteria and viruses resulting from sewage pollution.***

***It is illegal to distribute for sale shellfish landed from an area which is subject to local authority regulation (because of risk to health) which has not been treated in accordance with those regulations.***

Fishermen should not land fish of obviously poor intrinsic quality, processors and merchants should not supply such fish and retailers must not sell it.

Poor intrinsic condition in crustacean shellfish is often indicated by an apparently light weight for its size, or by the apparent movement or release of a lot of water when shaken.

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**Sea Fish (Conservation) Act 1967 (amended by Sea Fisheries Act 1968. Fisheries Limits Act 1976, Fisheries Act 1981).**

*Restrictions on commercial use of under-sized etc., sea fish*

1.-(1) Subject to the provisions of this section and of section 9 (1) of this Act, no person shall land in Great Britain any sea fish of any description, being a fish of a smaller size than such size as may be prescribed in relation to sea fish of that description by an order of the Ministers.

(2) Subject to the provisions of this section, no person shall, in Great Britain, sell, expose or offer for sale or have in his possession for the purpose of sale, any sea fish of any description, being a fish of a smaller size than such size as may be prescribed in relation to sea fish of that description by an order of the Ministers.

**Council Regulations (EEC) No. 3094/86 Article 5**

3. Undersized fish, crustaceans and molluscs shall not be retained on board or be transhipped, landed, transported, stored, sold, displayed or offered for sale, but shall be returned immediately to the sea.

Note: There are certain exemptions permitted.

**Public Health (Shellfish) Regulations 1934 (amended by SI 1948 No. 1120).**

*Power of local authority to make orders*

6.-(1) On receipt of a report of their medical officer of health upon an investigation made by him with regard to a laying situate in their district, the local authority shall take the report into consideration and if they are satisfied that the consumption of shellfish taken from the laying is likely to cause danger to public health they may make an order in the form set out in the Schedule to these Regulations or a form substantially to the like effect prohibiting the distribution for sale for human consumption of shellfish taken from the laying, either absolutely or subject to such exceptions and conditions as they may think proper, having regard to the interests of the public health.

#### **4.4.5 Food Act 1984**

**Part I**

*Composition and labelling of food*

1.-(1) A person is guilty of an offence who -

- a) adds any substance to food,
- b) uses any substance as an ingredient in the preparation of food,
- c) abstracts any constituent from food, or
- d) subjects any food to any other process or treatment,

so as (in any such case) to render the food injurious to health, with intent that the food shall be sold for human consumption in that state.

(2) A person is guilty of an offence who -

- a) sells for human consumption,
- b) offers, exposes or advertises for human consumption, or has in his possession for the purpose of such sale,

any food rendered injurious to health by means of any operation described in subsection (1), subject to subsections (3) and (4).

Note: Subsections (3) and (4) deal with the advertiser and cumulative effects of consumption.

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The legislation regarding minimum sizes, berried and soft shelled crabs and oyster seasons is to protect the stocks of fish and is aimed primarily at curbing fishing activity, but its powers extend to cover retail sale or even possession for the purpose of sale. There is additional local regulation of landings from particular grounds but the powers of that regulation do not extend directly to retail sale. Minimum sizes and the species affected are determined by the EEC Commission, and differ for various fishing areas and are subject to change, and can be supplemented by the UK government. The species and sizes currently affected are tabulated in Appendix III.

It is particularly important that molluscan shellfish are not contaminated as serious illness can result. Shellfish beds which are known to suffer from high levels of sewage or other pollution or from toxic plankton are made subject to local authority regulation. In the case of sewage pollution the regulations commonly stipulate that bivalve molluscs must undergo specified heat treatment, purification in an approved plant, or a period of relaying in a clean area, prior to distribution for sale. Areas can be closed completely, if for example there is a bloom of toxic plankton, in which case the landing and distribution for sale of bivalve molluscs is prohibited. It is an offence to sell, expose, distribute or offer for sale, or be in possession for the purpose of sale shellfish counter to these regulations.

#### **4.4.4 FREEDOM FROM WORMS AND OTHER PARASITES**

***Fish should not be sold if it contains more than 3 nematode worms per 3.2 kg (7lb) unit. No other visible parasites are allowable.***

Common parasites are the nematode worms *Phocanema decipiens* and *Anisakis simplex*. These worms, when embedded in the fish, look like coiled watch springs and are found especially in the region of the gut. Although they are unattractive they are not usually harmful to man as they are killed by thorough cooking or by freezing. It is difficult for the processor to guarantee removal of them all. Heavily parasitised fish must be avoided.

#### **4.4.5 FREEDOM FROM HARMFUL ADDITIVES**

***It is illegal to sell any food which contains additives injurious to health.***

Many regulations have been issued regarding various types of food and the types of additive permitted and not permitted in them. This becomes particularly complex for processed foods, including some fish products.

Processors and merchants must not supply fish with additives that are harmful or prohibited by regulation, and retailers must not sell it.

Chilled fish is known to be a healthy *whole* food. It is recommended that it is sold without any artificial additives.

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4.-(1) The Ministers may, so far as appears to them to be necessary or expedient in the interests of public health, or otherwise for the protection of the public, or to be called for by any community obligation, make regulations for any of the following purposes –

- a) for requiring, prohibiting or regulating the addition of any specified substance, or any substance of any specified class, to food intended for sale for human consumption or any class of such food, or the use of any substance as an ingredient in the preparation of such food, and generally for regulating the composition of such food;

#### **4.5.2 Food Act 1984**

##### **Part I**

##### *Composition and labelling of food*

2.-(1) If a person sells to the purchaser's prejudice any food which is not –

- a) of the nature, or
- b) of the substance, or
- c) of the quality,

of the food demanded by the purchaser, he is guilty of an offence, subject to section 3.

##### *Food unfit for human consumption*

9. -(1) A person who –

- a) sells or offers or exposes for sale, or has in his possession for the purpose of sale or of preparation for sale, or
  - b) deposits with, or consigns to, any person for the purpose of sale,
- any food intended for, but unfit for, human consumption is guilty of an offence.

(2) Where food of which an offence under paragraph (a) of subsection (1) has been committed was sold to the offender by some other person that person is also guilty of an offence.

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## **4.5 Fish approaching the minimum freshness standard**

### **4.5.1 A FLEXIBLE APPROACH TO SELLING**

***A flexible approach to display, to other aspects of promotion, to pricing and to alternative outlets is required to sell fish before it reaches the minimum freshness standard.***

The retailer should be aware of the condition of his fish and think ahead in respect of the end of the day's trading or weekend closure so that a special effort can be made to sell any fish which is likely to be of unacceptable freshness quality upon reopening.

Prominent display and labelling, special offer price reduction and positive selling can all assist. Finally, an alternative market, probably at a lower price, may be found for unsold fish.

Fish approaching the minimum freshness standard should not be frozen for human consumption or smoked as this will simply result in poor quality frozen or smoked fish.

### **4.5.2 DISPOSAL OF POOR QUALITY FISH**

***Any fish which becomes of poor freshness quality must be disposed of and not sold for human consumption.***

Selling poor quality fish is bad for business, can be construed as illegal if not of *the quality demanded by the purchaser* and is clearly illegal if grossly spoilt to the extent of being a health hazard. A high quality retailer must expect to have to dispose of some fish and will allow for this.

The prominent selling fish for pet food is not recommended as it detracts from the image of a retailer.

## GUIDELINES FOR THE HANDLING OF CHILLED FISH BY RETAILERS







## 5 Recommendations for purchasing fish

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- 5.1 The importance of developing a working relationship with suppliers
- 5.2 Predict sales, and purchase frequently
- 5.3 Consider a range of fish and products
- 5.4 Consider alternatives
- 5.5 Specify requirements
  - 5.5.1 Species, product form, quantity
  - 5.5.2 Quality
  - 5.5.3 Packaging and labelling
  - 5.5.4 Delivery/collection
- 5.6 Check supplies
- 5.7 Special consideration for shellfish and sensitive fish products



## 5 Recommendations for purchasing fish

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### 5.1 The importance of developing a working relationship with suppliers

***The retailer must establish a relationship of mutual understanding with his suppliers. Because supplies are variable and sometimes unpredictable it is vital that there is full understanding of what the retailer requires, what is acceptable, what will be rejected and what alternatives there may be.***

The form of relationship can vary from the retailer visiting local suppliers and selecting individual purchases of fish, through to large fixed price contracts based on detailed written specifications. Many retailers rely on verbal agreements made on the telephone with remote suppliers. Whatever the form of the relationship suppliers can advise on the varying availability, quality and price of fish and full use should be made of this information. Likewise retailers should make it absolutely clear, particularly to remote suppliers, what their policy is with regard to price, quality, range of species and products and any possible alternatives. It is particularly important that suppliers appreciate that fish of poorer quality than that expected by the retailer will be rejected.

It is recommended that retailers personally visit their suppliers at least occasionally to help establish and maintain this relationship.

### 5.2 Predict sales, and purchase frequently

***Fish should be purchased frequently and sold whilst still fresh, rather than held over. It is recommended that purchases are made daily.***

It is important that the retailer develops an understanding of his sales pattern so that where possible he can predict sales and does not have to hold fish over or otherwise dispose of unsold fish. It is recommended that the retailer records the daily sales for each type of fish and product throughout the year to assist in sales prediction.

It can be a bonus to the image of an outlet to be seen to sell out in the late afternoon rather than to be known to hold fish over.

Where it is impossible to purchase fish daily the quality specification for fish supplies must be raised to allow for holding over.

### 5.3 Consider a range of species and products

***A wide range of species and products adds greatly to the attractiveness and sales appeal of a retailer's display. However the retailer must be prepared to dispose of fish if it remains unsold and its quality becomes unacceptable.***

Because a retailer does not already have a market for a wide range of fish it does not mean that he cannot generate one. Some progressive retailers have found that a deliberate policy of purchasing small quantities of unusual fish primarily for the purpose of brightening their display has resulted in the generation of markets for the unusual fish and has also increased their general level of sales. Promotional material, salesmanship and advice to the customer can assist greatly with unusual fish.



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However, a display of exotic fish in poor condition will not be attractive to the knowledgeable passer-by and will impress the unwary purchaser even less.

## 5.4 Consider alternatives

***The retailer should make himself aware of alternative suppliers and consider their use, and should also consider alternative fish species and products if the required species and products are of inadequate quality or high cost.***

Whilst suppliers at inland markets can often supply a wide range of fish species and products, and sometimes provide delivery, specialist suppliers and port merchants can supplement that range and provide good service in their speciality, often including delivery. However, after having established good working relationships with suppliers the retailer should also consider the difficulty and risks involved in having to establish new relationships with new suppliers.

The availability and quality of particular species of fish varies with the seasons, with the weather, with landing quotas and fish stocks, and with market demand. As an alternative to paying an unusually high price for the expected quality of a particular species or product the retailer should consider purchasing an alternative that may satisfy his customers. Promotional material, salesmanship and particularly explanation to his customers can then boost the image of the retailer as supplying only quality fish. On no account should quality standards be allowed to slip so that poor quality fish is sold.

If chilled fish is not available at certain times the retailer should give consideration to thawing frozen fish. However, the time necessary to thaw frozen fish prior to display for sale must be allowed for, and thawed fish on display must be clearly labelled to show that it has been previously frozen.

## 5.5 Specify requirements

***Whatever the form of the relationship between supplier and retailer, be it verbal or a detailed written contract, all the relevant aspects of fish purchase must be specified.***

Examples of written specifications are given in the *Seafish Specifications For The Purchase of Fish* written for *Institutional Purchasers and Suppliers*. These Guidelines themselves can be used as a basis for specifications and further advice can be obtained from Seafish Quality Assurance Officers.

### 5.5.1 SPECIES, PRODUCT FORM, QUANTITY

***The fish species, product form (e.g. whole fish, or block fillets, or hot smoked single fillets of a particular weight range) and the quantity required must be specified.***

It is recommended that any alternative species or product forms are also specified together with the circumstances of quality and price in which they are to be supplied.

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**5.5.3 SI 1970 No. 1172**  
**The Food Hygiene (General) Regulations 1970**

**Part II**

*Food to be protected from risk of contamination*

9.-A person who engages in the handling of food shall, while so engaged, take all such steps as may be reasonably necessary to protect the food from risk of contamination, and in particular (without prejudice to the generality of the foregoing)

- a) shall not so place the food as to involve any risk of contamination;
- b) shall, before offering any food for sale, ensure that any food which is unfit for human consumption is kept apart from any other food;
- c) shall not in or about any forecourt or yard, place any food lower than eighteen inches from the ground unless it is adequately protected from risk of contamination;
- d) shall ensure where reasonably necessary that open food while exposed for sale or during sale or delivery is kept covered or is otherwise effectively screened from possible sources of contamination;
- e) shall not keep in any food room any animal feed unless it is in a container of such material and so closed as to prevent the risk of contaminating the food in the room;

Provided that paragraph (b) shall not apply where food is intended to be sold by wholesale either by sample or description.

**5.5.4 SI 1966 No. 791**  
**The Food Hygiene (Markets, Stalls and Delivery Vehicles) Regulations 1966**

**Part III**

*Food to be protected from risk of contamination*

7.-A person who engages in the handling of food shall, while so engaged, take all such steps as may be reasonably necessary to protect the food from the risk of contamination, and in particular (without prejudice to the generality of the foregoing)

- a) shall not so place the food as to involve any risk of contamination;
- b) shall, before offering any food for sale, ensure that
  - (i) any part of that food which is unfit for human consumption is removed, and
  - (ii) any food which is unfit for human consumption, unsound or unwholesome is kept apart from any other food;
- c) shall not in or about any forecourt, yard, market or stall, place any food lower than eighteen inches from the ground unless it is adequately protected from risk of contamination; and
- d) shall ensure that open food is kept covered where reasonably necessary with a clean cover while exposed for sale and during sale or delivery;

Provided that paragraph (b) of this regulation shall not apply where food is intended to be sold by wholesale either by sample or description.

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### **5.5.2 QUALITY**

***The fish quality must be as specified in section 4.4 of these Guidelines.***

It is preferable that the retailer purchases fish of good freshness quality only.

### **5.5.3 PACKAGING AND LABELLING**

***All fish must be securely packaged to protect it from damage and contamination during transit. It is recommended that the package is clearly labelled with the species, product form and quantity. It is recommended also that the package is clearly labelled with the identity of the packer (processor or merchant) and with the date of packing, or freezing.***

***The packaging of chilled fish should be designed to maintain it at a chilled temperature as close to 0°C as possible within the range 0°C to +4°C. Wet fish should be packed in ice with sheets of wet-strength paper or polythene film to protect fillets. Non-returnable expanded polystyrene boxes are recommended.***

***The packaging of frozen fish should protect it from dehydration.***

Labelling with the date of packing or freezing does not indicate the shelf life of the fish but it is an aid to the control of fish quality by assisting the distributor, wholesaler and retailer in stock rotation.

At times during the distribution of chilled fish the package is the only protection from the environment given to the fish. Surrounding the fish in ice within the package is the best means of chilling wet fish. Waxed cardboard boxes are tough but only expanded polystyrene boxes provide the insulation necessary when the box alone is protecting the fish. The box should be sufficiently large to carry the fish plus the quantity of ice necessary. A fish: ice ratio of 3:1 by weight is recommended when packing. The box should be securely closed with strapping or tape but not with thin string which can damage the box.

It is recommended that frozen fish are double wrapped in an outer carton or cover.

### **5.5.4 DELIVERY/COLLECTION**

***The times and circumstances of delivery/collection must be specified.***

***Fish must be taken directly into the chill store after delivery/collection. If delivery is outside of normal working hours then arrangements must be specified to provide the deliverer with access to a chill store. Fish must not be left unprotected.***

***Delivery/collection vehicles must maintain the fish within the correct temperature range, that being 0°C to +4°C for the delivery of chilled fish and less than -15°C for the frozen fish.***





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Delivery/collection from a local wholesale market can usually be carried out in the early morning when retail staff are available. Delivery from a remote port may inevitably be at an inconvenient and possibly variable time of night depending on the location of the retailer. Packages of fish must not be left unprotected outside the retailer's premises and thus exposed to contamination by vermin and domestic animals, to further temperature rises on warm nights (when ice may already have been lost earlier during distribution), and to theft. It may be necessary to give the deliverer a key giving limited access to the premises to reach the chill store, or to have a secondary chill store for reception.

For local delivery/collection an uninsulated but covered, van or trailer may be adequate for chilled fish provided that the fish is well packaged and delivery/collection is direct. For a delivery round or extended delivery an insulated and refrigerated vehicle is recommended. For direct local collection of frozen fish a well insulated container may suffice.

Care must be taken to avoid cross-contamination between the various types of fish and product during delivery/collection. It is essential that the drip from wet fish does not contaminate any fish which may be eaten without further cooking. Smoked fish and cooked fish must be stored above or to one side of wet fish.

Fish boxes must be stacked and handled with care to avoid damage.

## 5.6 Check supplies

***Before collection, on delivery, or on arrival at work in the morning if fish is delivered overnight, each batch of fish should be checked for content, damage, temperature and quality by a responsible member of staff. If an order does not meet the specification then the supplier must be notified immediately and if necessary the batch rejected. Fish in badly damaged packages and fish of poor quality should be rejected immediately.***

Notification of the supplier, negotiation of price reductions for orders that are out of specification but which still remain acceptable in the absence of alternative supplies, and rejection of unsatisfactory orders all serve to reinforce the understanding between retailer and supplier and maintain standards.

If the temperature of the fish is out of specification but the quality of the fish remains acceptable then it is recommended that this is a matter for negotiation between retailer and supplier. If the problem recurs then the retailer should seek another supplier.

## 5.7 Special consideration for shellfish and sensitive fish products

***It is difficult for the retailer to accurately assess the condition of certain shellfish, particularly live shellfish, and the retailer has no practical means of assessing the vital cleanliness of bivalve molluscs. Under these circumstances it is particularly important that the retailer buys from a reputable supplier who can guarantee that the shellfish comes from an approved source and has been correctly handled.***



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***This also applies, to an extent, to some fish products including frozen fish, smoked and cooked fish. It is particularly important that cooked fish has been adequately heat treated and remains uncontaminated.***

***Some of these shellfish and products also require different packaging and handling to that previously specified.***

It is recommended that the retailer, via his supplier, finds out the source of shellfish, particularly bivalve molluscs, making certain that they come from an approved area and have been purified if necessary. It is also recommended that the retailer keeps records of shellfish supplied for several months after the date of supply to assist health officers trace the source of any outbreak of food poisoning.

Likewise it is recommended that the retailer, via his supplier, identifies the processor or source of frozen, smoked and cooked fish products.

Live shellfish generally require to be held in moist conditions within a temperature range of +2°C to +8°C. Unless transported in aerated sea water tanks, live crustacea are best densely packed in boxes and covered in wet hessian sacking or similar absorbent material upon which ice should be placed in warm weather if not held in refrigerated conditions. Live molluscs are best tightly packed in damp sacks, and again should be indirectly cooled with ice in warm weather if not held in refrigerated conditions.

Smoked fish and cooked fish should have been well chilled prior to packing and then should be maintained within the temperature range 0°C to +4°C during transportation either by refrigeration or by indirect ice cooling.

# 6 Recommendations for premises, vehicles and equipment

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## 6.1 Recommendations for shops

### 6.1.1 The importance of design

- 6.1.1.1 Function and layout
- 6.1.1.2 Maintaining fish quality
- 6.1.1.3 Cleaning and hygiene
- 6.1.1.4 An attractive image

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  - 6.1.2.1.2 Retail sales area
- 6.1.2.2 Walls
  - 6.1.2.2.1 Reception and processing areas
  - 6.1.2.2.2 Retail sales area
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- 6.1.3.3 Chill storage
  - 6.1.3.3.1 Type of chill store
  - 6.1.3.3.2 Construction

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- 6.1.3.4 Frozen storage
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    - 6.1.3.4.2 Construction
  - 6.1.3.5 Chill display facilities
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    - 6.1.4.2 Preparation and processing equipment
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      - 6.1.4.3.1 Display trays and containers
      - 6.1.4.3.2 Decorative material
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      - 6.1.4.4.1 Cleaning materials and equipment
      - 6.1.4.4.2 First aid kit
      - 6.1.4.4.3 Insect killing devices



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**6.1.1 SI 1970 No. 1172**  
**The Food Hygiene (General) Regulations 1970**

**Part II**

*Food business not to be carried on at insanitary premises or place*

6. No food business shall be carried on at any insanitary premises or place or at any premises or place the condition, situation or construction of which is such that food is exposed to the risk of contamination.

**Part IV**

*Cleanliness and repair of food rooms*

25. The walls, floors, doors, windows, ceiling, woodwork and all other parts of the structure of every food room shall be kept clean and shall be kept in such good order, repair and condition as to:-

- a) enable them to be effectively cleaned; and
- b) prevent, so far as is reasonably practicable, any risk of infestation by rats, mice or insects.

**Food Act 1984**

**Part I**

*Control of food premises*

21.-(1) Where on an information laid by a local authority a person is convicted of an offence under regulations made under section 13 and the offence includes:-

- a) the carrying on of a food business at any insanitary premises or at any premises the condition, situation or construction of which is such that food is exposed to the risk of contamination, or
- b) the carrying on of a food business on, at or from a stall which is insanitary, or which is so situated or constructed, or is in such a condition that the food is exposed to risk of contamination,

then subject to subsection (2), if the court is satisfied that:-

- (i) food continues or is likely to continue to be prepared, stored, sold or offered or exposed for sale at those premises or on, at or from that stall, and
  - (ii) by reason of the situation, construction or insanitary or defective condition of the premises or stall or the insanitary or defective condition of the fittings or fixtures or equipment or the infestation of vermin or the accumulation or refuse, the carrying on of a food business at those premises or on, at or from that stall would be dangerous to health,
- the court may on the local authority's application, whether or not it makes any other order, by order (called "a closure order") prohibit the preparation, storage, sale or offer for exposure for sale at those premises or on, at or from that stall of food until the local authority certifies under subsection (4) that such specified measures as the court considers necessary to remove the danger to health have been carried out.



# 6.1 Recommendations for shops

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## 6.1.1 The importance of design

***Attention given to the design of a retail outlet, from its overall layout to the details of equipment, will contribute greatly to the smooth running and success of the outlet. The layout should enable each of the separate operations required in fish retailing to be carried out efficiently without interference and without cross-contamination of the product. The facilities should maintain the chilling and protection of the fish throughout. The surfaces and details of design should enable easy cleaning and the maintenance of hygiene. The whole should present a clean bright and attractive image to the customer and stimulate sales.***

### 6.1.1.1 FUNCTION AND LAYOUT

***The major functional areas of the retail outlet are fish reception, storage, processing, sales and waste storage. In addition toilet and cloakroom facilities are required.***

The layout should enable the efficient flow of fish through these areas and the return of waste, avoiding cross-contamination.

It is recommended that the reception area is at the back of the premises, provided that there is adequate access for delivery vehicles, and that the chill store is adjacent for delivery directly into chill. For reasons of security during delivery out of working hours it may be considered necessary for the reception area and the chill store to be separately lockable from the remainder of the premises. The deliverer then has access only to the chill. However during working hours this arrangement should not restrict the further movement of fish from the chill. An alternative is to provide a separate, lockable, chill store for reception purposes. An unchilled security cage is not adequate for fish reception.

It is recommended that any large scale processing of fish is carried out in a separate area away from the sales area but with good access to the chill store. Minor processing operations such as trimming and portioning are best carried out in the sales area and provision must be made for this.

A clear route should be provided to take fish from the chill store to the processing area and to the fish display in the sales area.

Within the sales area the fish display should be prominently positioned to attract the customer, but the fish must be protected from contamination and direct sunlight. South facing windows should be avoided if possible and must be shaded by a canopy if used. The monger should have immediate access to the display from his serving point. The flow of customers through the sales area also needs consideration.

It is recommended that the waste storage area is at the back of the premises, remote from the customer, and to the side of the main route for fish reception.

It is recommended that where possible the facilities provided for the staff are designed as a unit, with a toilet separated from the remainder of the premises by a cloakroom containing a wash-hand basin and lockers.



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#### 6.1.1.2 MAINTAINING FISH QUALITY

***The chill storage and display facilities must be designed to maintain all chilled fish at a temperature as close to 0°C as possible within the range 0°C to +4°C. It is recommended that this is best achieved by the use of ice, refrigeration being used in support of ice and for certain products which should not have direct contact with ice. Live shellfish are best held within the temperature range +2°C to +8°C.***

There must be sufficient chill storage capacity to cope with the daily throughput of fish plus any fish held over when the need arises, so that no fish is stored outside of chill storage.

Fish on display are particularly vulnerable to temperature rise and are often found at temperatures in excess of +4°C. The location, design and icing of the display are crucial in maintaining quality.

If frozen fish is stored then the facilities must be designed to maintain the fish at a temperature of -18°C, or lower.

#### 6.1.1.3 CLEANING AND HYGIENE

***A smooth durable finish should be specified for all surfaces. In areas requiring frequent cleaning surfaces must also be impervious and hard wearing. Food-grade materials must be specified for all surfaces and for all equipment and utensils which come into contact with fish. Wood is not suitable.***

***The premises must be designed to be vermin proof, and throughout the premises the fish must be protected from contamination.***

Stainless steel is recommended for many surfaces and items of equipment. Various grades of stainless steel are available and grade 18/8 is one of the grades suitable. This grade is protected by a self-repairing film of chromium oxide, although constant use of harsh abrasives will wear away the surface.

Premises, equipment and utensils must be designed such that they can be easily cleaned without crevices or corners that act as dirt traps. If necessary, equipment should dismantle for cleaning. The mounting of large items of equipment on wheels is highly recommended to enable cleaning around and behind the equipment. A brake should be fitted to at least two of the wheels.

A light colour scheme is recommended to show up dirt and make cleaning easier.

The overall layout of the premises and the layout of individual facilities, such as the chill store and the fish display, must ensure that not only is there no cross-contamination between fish and waste materials but also that there is no cross-contamination between various types of fish and products. In particular live shellfish must be kept separately, and cooked products including hot smoked fish must be separated from uncooked fish. Separate facilities must be provided for poultry, game and other meat products.

Fish on display are particularly vulnerable to contamination and again the location and the design of the display are crucial.



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Drainage slopes in wet areas should be designed to direct waste water away from the major access routes between the various facilities.

#### **6.1.1.4 AN ATTRACTIVE IMAGE**

***Prominent location of the fish display, consideration of the layout of the sales area, remote location of the reception and waste storage areas, separation of large scale processing activity, good lighting and ventilation and bright clean surfaces all contribute to an attractive image.***

Attention should be paid to attractive decor in the sales area and it is recommended that provision is made for the display of promotional material.

### **6.1.2 Details of the premises**

#### **6.1.2.1 FLOORS**

***Floors in all areas must be smooth and even, impervious to water, non-slip when wet, and easy to clean. For wet areas the floor should slope by a least 1 in 100 towards a drain or gully. Junctions at walls and bases of permanent equipment etc. should be coved to a height of 15cm.***

The use of matting, which can trap dirt and liquids and is difficult to clean, is not recommended.

##### **6.1.2.1.1 Reception, processing and waste storage areas**

For these areas which are wet and require frequent cleaning a practical hardwearing material is granolithic concrete.

A more expensive but attractive alternative is terrazzo, made of coloured marble chips set in Portland cement.

Polymer flooring based on derivatives of epoxy, polyester and polyurethane resins can provide a continuous covering throughout the premises. Fillers can be incorporated to provide a safe non-slip surface. Great care and skill is required in the preparation and laying of these materials which is best performed by specialist contractors.

Ceramic and quarry tiles can be used and are available in a range of colours and patterns but care should be taken to ensure suitable non-absorbent bedding and jointing materials are used.

##### **6.1.2.1.2 Retail sales area**

Alternatives to the materials suggested above include PVC or rubber composition tiles or sheeting. Heavy duty material should be specified with a filler to give non-slip properties.

A wooden floor cannot be recommended as it will accumulate dirt, water etc. between the joints.



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### 6.1.2.2 WALLS

***Walls in all areas must be smooth, impervious and easy to clean. Areas adjacent to sinks and processing tables should be protected with splashbacks of tiles or sheeting. If possible all pipework should be chased into the wall, or alternatively boxed-in to facilitate cleaning and improve appearance.***

#### 6.1.2.2.1 Reception and processing areas

For these areas where there is likely to be heavy contamination and there is a requirement for frequent cleaning, it is recommended that walls are tiled or similarly protected to a height of at least 1.5m (5ft). Above this the walls can be covered in a paint resistant to flaking and damp conditions.

In areas requiring considerable physical protection, for example in reception areas where boxes are being moved, a tougher but more expensive alternative is to use stainless steel or aluminium sheeting.

Attractive and durable wall coverings are available in the form of proprietary wall claddings based on heavy duty plastic sheeting. These materials can be fixed directly to the walls, but care should be taken to ensure all joints are rendered waterproof and this is best performed by specialist contractors.

Modern paint technology provides a range of paints suitable for food premises. Of particular value to the fish retailer are mould inhibiting paints (which must be non-toxic) and two-part polymer paints which provide a tough surface. In all cases the manufacturer's instructions for application must be carefully followed, especially with regard to surface preparation, ventilation, temperature and dampness.

#### 6.1.2.2.2 Retail sales area

Depending on the layout of the shop the wall coverings may beneficially extend throughout the premises. However, if the retail sales area is considered separately a light coloured emulsion paint over a plaster surface is adequate.

### 6.1.2.3 CEILINGS

***Ceilings must be smooth, kept clean and in good repair, and should ideally be at a height of 3-3.6 metres.***

Plasterboard sheeting is normally suitable with joints taped and skimmed with plaster. The surface should be emulsion-painted in a light colour. Gloss paint causes glare and encourages condensation.

The height of the ceiling is important as a high ceiling will be difficult to clean and a low ceiling will restrict ventilation.

In general suspended ceilings are not desirable because of problems in cleaning the roof space, but they may be necessary in certain premises.

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**6.1.2.5 SI 1970 No. 1172**  
**The Food Hygiene General Regulations 1970**

Part IV

*Lighting of food rooms*

22. Suitable and sufficient means of lighting shall be provided in every food room and every such room shall be suitably and sufficiently lighted.

**6.1.2.6 SI 1970 No. 1172**  
**The Food Hygiene General Regulations 1970**

Part IV

*Cisterns for supplying water to food rooms*

15. No cistern for the supply of water to a food room shall supply a sanitary convenience otherwise than through an efficient flushing cistern or some other flushing apparatus equally efficient and suitable for preventing contamination of water supplies.



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#### **6.1.2.4 WOODWORK AND FITTINGS**

***Doors and window frames should be of simple unadorned design. Fittings should be of corrosion-resistant material which is easy to clean and does not require painting. Any wood should be finished in a hard gloss paint.***

Doors should be fitted with protective finger plates and metal kick plates to reduce damage and to facilitate cleaning. All doors and windows should be of a good tight fit to exclude vermin. Frames should joint well with the wall with all joints sealed. Windows which open to provide ventilation should be fitted with insect screens.

#### **6.1.2.5 LIGHTING**

***Good lighting is essential if the premises are to be attractive to the customer, safe for the staff to work in and easy to keep clean. Maximum benefit should be made of natural illumination, but great care must be taken to avoid the heating effects of direct sunlight, particularly on the fish display. Fluorescent lighting is ideal as it produces less heat than conventional tungsten filament bulbs and also less glare, and saves electricity. All light fittings should be of simple design, corrosion-resistant and easily cleaned. Fittings should be designed to prevent broken glass falling into the fish. Proximity switches are recommended, otherwise waterproof switches should be used.***

##### **6.1.2.5.1 Reception, processing and waste storage areas**

Although there are no legally defined standards of illumination, a level of 400-500 lux is recommended. With fluorescent lights this is achieved with an allowance of at least 20 watts per square metre. To provide even illumination it is necessary to distribute the lights over an area.

##### **6.1.2.5.2 Retail sales area**

Recommendations for overall lighting of the area are as in section 6.1.2.5.1 above.

The fish display requires special consideration, natural lighting is ideal but it is essential that direct sunlight is avoided, preferably by careful positioning of the display or by the use of shading with a canopy. The display must not be in an unshaded south facing window. To enhance the illumination of the display low heat output halogen spot lights, or fluorescent lights of a natural daylight colour, are recommended. Conventional tungsten filament spot lights are not recommended because of the heat they project onto the fish. Excessive lighting will heat up the fish on display, even if efficient fluorescent or halogen lights are used.

#### **6.1.2.6 WATER SUPPLIES**

***All water to the premises must come from a public mains supply. Whilst cold water is adequate for washing fish, a constant supply of both cold and hot water is necessary for washing hands and equipment. It is recommended that the hot water supply is at +60°C or above for the effective washing of equipment and utensils.***

It is recommended that the hot water heater is independent of any room heating system to ensure a constant supply of suitably hot water.

*Water supply to be provided*

17. Subject to the provisions of any certificate of exemption, a supply of water sufficient in quantity to enable these regulations to be complied with shall be provided at all food premises.

Any such supply of water shall:-

- a) be clean and wholesome
- b) be constant, if the provision of a constant supply is reasonably practicable and is in accordance with good practice at premises used for business of a similar class.

*Facilities for washing food and equipment*

21. There shall be provided in all food premises where open food is handled sinks or other washing facilities suitable and sufficient for any necessary washing of food and equipment used in the food business; and in this regulation reference to a sink shall include a reference to any other suitable washing facility.

There shall be provided for every such sink an adequate supply of hot and cold water or of hot water at a suitably controlled temperature, or cold water only where the sink is used:-

- a) only for washing fish, fruit or vegetables; or
- b) for washing with a suitable bactericidal agent only drinking vessels, or only ice cream formers or servers.

Every such sink shall be kept clean and in good working condition.

**6.1.2.7 SI 1970 No. 1172  
The Food Hygiene General Regulations 1970**

**Part IV**

*Wash-hand basins to be provided*

18. There shall be provided in all food premises suitable and sufficient wash-hand basins for the use of all persons engaged in the handling of food in or about those premises and such basins shall be placed in a position conveniently accessible to such persons.

There shall be provided for every such wash-hand basin an adequate supply of hot and cold water or of hot water at a suitably controlled temperature, or in the case of food premises where no open food is handled, of cold water.

There shall be provided for use at every such wash-hand basin an adequate supply of soap or other detergent, nail brushes and clean towels or other suitable drying facilities.

Every such wash-hand basin shall be kept clean and in good working condition.

The washing facilities provided under this regulation shall not be used for any purpose other than securing the personal cleanliness of the user.

*Facilities for washing food and equipment*

21. There shall be provided in all food premises where open food is handled sinks or other washing facilities suitable and sufficient for any necessary washing of food and equipment used in the food business; and in this regulation reference to a sink shall include a reference to any other suitable washing facility.

There shall be provided for every such sink an adequate supply of hot and cold water or of hot water at a suitably controlled temperature, or cold water only where the sink is used:-

- a) only for washing fish, fruit or vegetables; or
- b) for washing with a suitable bactericidal agent only drinking vessels, or only ice cream formers or servers.

Every such sink shall be kept clean and in good working condition.

**SI 1964 No. 965  
The Washing Facilities Regulations 1964**

*Application of regulations*

2. (1) Subject to paragraph (2) of this Regulation, these Regulations shall apply to all office premises, shop premises and railway premises to which the Act applies.

(2) Nothing in these Regulations shall apply to any premises to which the Act applies which are aggregated in a market, being either -

- a) a market held by a virtue of a grant from the Crown or of prescription or under statutory authority and which is maintained or regulated by a local or other authority;
- b) any market (other than as aforesaid) held in a market place of which the sole or principal use is for and in connection with the sale of horticultural produce by wholesale; or
- c) any market (other than a market specified in sub-paragraph (a) or (b) of this paragraph) which is a covered market place to which section 51 (power to adapt Act in relation to covered markets) of the Act relates.

A hot water temperature of +60°C or above is necessary to kill bacteria on equipment and utensils.

To avoid scalding the hot water for hand washing should be provided at a reduced temperature of about +40°C which can be best achieved using a mixer tap or spray.

#### **6.1.2.6.1 Reception, processing and waste storage areas**

For these areas where there is likely to be heavy contamination and there is a requirement for frequent cleaning it is recommended that a flexible hose fitted with an adjustable spray nozzle is provided to assist in swilling down. The hose should be fitted to its own tap and be capable of reaching all areas. It may be preferable to have more than one hose and tap. Hose reels should be provided to conveniently store hoses off the ground.

#### **6.1.2.7 SINKS AND WASH-HAND BASINS**

***There must be sufficient large sinks adjacent to fish handling areas for the washing of equipment and utensils, and separate sinks for the washing of fish. Separate wash-hand basins must be provided adjacent to fish handling areas and to toilets and must be used for the purpose of personal hygiene only.***

Sinks for washing fish, equipment and utensils, and their draining boards and work surfaces all should have a smooth, hardwearing, even surface. Stainless steel is recommended. Enamelled sinks, galvanised sinks and glazed stoneware cannot be recommended as they are liable to chipping or corrosion.

Separate sinks are required for the washing of fish and equipment to avoid the contamination of fish with detergent.

Wash-hand basins should be of stainless steel or glazed stoneware and large enough to wash hands and forearms. Proximity taps are recommended to prevent re-contamination when turning off the taps, or alternatively wrist, knee or foot operated taps.

##### **6.1.2.7.1 Reception and processing areas**

It is recommended that sinks for washing fish, equipment and utensils and wash-hand basins are fitted within the processing area. If the reception area is lockable for delivery out of working hours then it is recommended that a wash-hand basin is fitted in the reception area for use by the deliverer.

##### **6.1.2.7.2 Retail sales area**

It is recommended that sinks for washing fish and utensils and a wash-hand basin are fitted within the retail sales area.

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**SI 1970 No. 1172**  
**The Food Hygiene General Regulations 1970**

**Part III**

*Food to be protected from risk of contamination*

9. A person who engages in the handling of food shall, while so engaged, take all such steps as may be reasonably necessary to protect the food from risk of contamination, and in particular (without prejudice to the generality of the foregoing)–

- a) shall not so place the food as to involve any risk of contamination;
- b) shall, before offering any food for sale, ensure that any food which is unfit for human consumption is kept apart from any other food;

**Part IV**

*Accumulation of refuse, etc.*

26. The layout of food premises shall be such as to provide adequate space, suitably sited for the purpose of the removal of waste from food and the separation of unfit food in compliance with the requirements of regulation (9b), and the storage of any such waste and unfit food prior to disposal. No refuse or filth, whether solid or liquid, shall be deposited or allowed to accumulate in a food room except so far as may be unavoidable for the proper carrying on of the trade or business.

**1 SI 1970 No. 1172**  
**The Food Hygiene General Regulations 1970**

**Part IV**

*Sanitary conveniences*

16. Every sanitary convenience situated in, or regularly used in connection with, any food premises:–

- a) shall be kept clean and in efficient order;
- b) shall be so placed that no offensive odours therefrom can penetrate into any food room.

Any room or other place which contains a sanitary convenience shall be suitably and sufficiently lighted and ventilated and shall be kept clean.

No room which contains a sanitary convenience shall be used as a food room.

No food room which communicates directly with a room or other place which contains a sanitary convenience shall be used for the handling of open food.

There shall be fixed and maintained in a prominent and suitable position near every sanitary convenience provided or made regularly available for use by persons employed in the handling of food in or about food premises, a clearly legible notice requesting users to wash their hands after using the convenience.

*Accommodation for clothing, etc.*

20. Subject to the provisions of any certificate of exemption, there shall be provided in food premises where open food is handled suitable and sufficient accommodation for outdoor or other clothing and footwear not being worn during working hours by persons engaged in the handling of food in or about those premises: and such clothing and footwear shall not be kept in any place on or about the premises other than in the accommodation so provided. Where such accommodation is situated in a food room it shall be in the form of lockers or cupboards.

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#### **6.1.2.10 WASTE DISPOSAL FACILITIES**

***An area must be designated for the storage of waste preferably outside the premises but with easy access.***

***Waste should be stored in leakproof corrosion-resistant metal or plastic bins with close-fitting lids having internal and external surfaces which are easily cleaned. Plastic bags may be provided for the storage of waste inside bins but should not be used alone.***

##### **6.1.2.10.1 Waste storage area**

It is recommended that bins are stored on a permanent platform raised 0.4–0.5m above the ground to discourage vermin and are protected from the weather, including direct sunlight, by a sloping roof.

It is important that this area can be washed down and is well drained because of the possibility of seepage from bins.

##### **6.1.2.10.2 Processing and retail areas**

Fish offal from processing and retail trimming operations may be temporarily stored on the premises in bins. Offal for pig swill, pet food etc. may be stored in clean bins in a chill store provided that it is in an area of chill store clearly separated from fish for human consumption.

#### **6.1.2.11 TOILETS AND CLOAKROOMS**

***Sufficient toilets must be provided for the staff normally present on the premises, plus facilities for changing into work clothes.***

For most premises 1 toilet is adequate.

Toilets must comply with the legislation and must be kept clean and in effective working order. Rooms containing toilets must be separated from all areas in which fish is handled by an intermediate ventilated space. It is recommended that the necessary wash-hand basin is located in that space together with the necessary notice requesting users of the convenience to wash their hands.

Facilities must be made available for staff to store their outdoor clothing, footwear and work clothes in a designated area. Because of the nature of fish handling it is recommended that these facilities are separated from any fish handling area, and that a changing area and lockers are provided.

**SI 1964 No. 966**  
**The Sanitary Conveniences Regulations 1964**

*Application of regulations*

2.-(1) Subject to paragraph (2) of this Regulation, these Regulations shall apply to all office premises, shop premises and railway premises to which the Act applies.

(2) Nothing in these Regulations shall apply to any premises to which the Act applies which are aggregated in a market, being either -

- a) a market held by virtue of a grant from the Crown or of prescription or under statutory authority and which is maintained or regulated by a local or other authority;
- b) any market (other than as aforesaid) held in a market place of which the sole or principal use is for and in connection with the sale of horticultural produce by wholesale; or
- c) any market (other than a market specified in sub-paragraph (a) or (b) of this paragraph) which is a covered market place to which section 51 (power to adapt Act in relation to covered markets) of the Act relates.

*Situation of sanitary conveniences*

6.-(1) No sanitary convenience provided in pursuance of these Regulations shall be situated in any room in which any person (other than a lavatory attendant) is employed to work.

(2) Except as provided in paragraph (3) of this Regulation, no watercloset and chemical closet, no accommodation in which a urinal is provided and no accommodation containing a watercloset or chemical closet which, in either case, is not wholly enclosed shall be so situated that access to it is obtained directly from any room in which any person (other than a lavatory attendant) is employed to work.

(3) The requirements of paragraph (2) of this Regulation shall not apply where:-

- a) it is not reasonably practicable to comply with such requirements in the case of any water closet, chemical closet or accommodation of any kind referred to in the said paragraph (as the case may be); and
- b) the watercloset, chemical closet or accommodation (as the case may be) was first installed or constructed before the date of the making of these Regulations in a building for use therein;

and in any such case the watercloset, chemical closet or accommodation shall be provided with effective mechanical means of ventilation which shall discharge directly into the open air and which shall be kept in operation during the periods during which any person is employed to work in the room from which access is obtained directly to the watercloset, chemical closet or accommodation (as the case may be).

(4) Any enclosed space between a watercloset, chemical closet or accommodation where a urinal is provided and any room in which any person (other than a lavatory attendant) is employed to work shall be provided with effective means of ventilation.

*Protection and privacy of sanitary conveniences*

7.-(1) All accommodation where any watercloset, chemical closet or urinal is provided in pursuance of these Regulations shall be covered to an extent sufficient to ensure protection from the weather for persons using it.

(2) Every watercloset and chemical closet provided in pursuance of these Regulations shall be enclosed to an extent sufficient to ensure privacy and be fitted with a suitable door and door fastening.

(3) Every urinal provided in pursuance of these Regulations shall be so placed or so screened as not to be visible from outside the accommodation where the urinal is situated.

**SCHEDULE**  
**PART I**

**Regulation 3**

**WATERCLOSETS AND URINALS TO BE PROVIDED IN ACCORDANCE WITH**  
**SECTION 9 OF THE ACT**

1. In the case of premises (whether or not persons of both sexes are employed to work therein) where:-

- a) the number of persons employed to work therein does not regularly exceed five at any one time; or
  - b) of the number of persons regularly employed to work therein there is none whose daily hours of work in the premises normally exceed two;
- one watercloset.







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#### **6.1.2.12 DRY STORAGE FACILITIES**

***Dry areas must be provided for the separate storage of dry goods.***

Dry goods include packaging materials, canned and packaged goods sold, cleaning materials, promotional material, etc.

Storage areas must be well ventilated and well protected from contamination and vermin.

Cleaning materials should be stored separately from food or packaging materials to avoid tainting.

### **6.1.3 Details of fish storage and display facilities**

***There must be separate storage and display facilities to cope with all the chilled and frozen fish handled.***

#### **6.1.3.1 ICE**

***There must be a plentiful supply of ice at all times for setting up the chilled fish display, for re-icing the display and for re-icing the fish during storage. It is recommended that the fishmonger buys a flake ice machine to ensure an independent supply of ice.***

Icing is the best method for cooling wet fish. In addition ice keeps the fish moist and the melt water washes the surface of the fish, keeping it clean and looking fresh.

Ice can be produced as flakes, cubes, tubes, or as blocks for crushing. The use of flake ice is recommended because it provides a large surface area for a given weight and it will cool and protect the fish without causing unsightly indentations.

Many mongers rely on an outside source of ice, for example from ports or inland markets, but these sources can be unreliable especially during periods of peak demand in summer when fish is most vulnerable to temperature rise.

All ice used must be produced with water from a public mains supply

##### **6.1.3.1.1 Ice capacity**

The quantity of ice required will depend on the type of business, season and method of display, but as a guide the approximate total daily requirement will be one third by weight of the daily throughput of fish.

It is recommended that sufficient ice storage capacity is provided equivalent to at least one day's requirement. This may be achieved with a large storage bin attached to an ice machine, or alternatively by stockpiling ice in the chill store. Stored ice must be protected from contamination by using lidded bins made from corrosion-resistant metal or plastic. The bins must have drainage holes.

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#### 6.1.3.1.2 Ice machine

The machine should be supplied and installed by a reputable supplier. It must be designed to withstand the damp conditions normally found in a fishmonger's shop and should be constructed from corrosion-resistant materials. The machine should be installed in a well-ventilated position in accordance with the maker's instructions.

When choosing a machine a model with a production capacity in excess of the required quantity should be chosen.

For large machines the constituent parts, the ice maker, the storage bin and the refrigeration unit can be separated. Typically the ice maker is positioned above to gravity feed the bin, and the refrigeration unit located remotely as described in section 6.1.3.2 below.

#### 6.1.3.2 INSTALLATION OF REFRIGERATION PLANT

***It is recommended that separate refrigeration plant is located away from fish handling areas to remove a source of heat and noise.***

Compressor units must be located in a well-ventilated position, for example at the back of the premises or even on the roof, with suitable protection from the weather.

Calculation of the refrigeration capacity must be based on the advice of a qualified refrigeration engineer, and the recommendations given in the Heating and Ventilating Contractor's Association *Guide to Good Practice for Commercial and Light Industrial Refrigeration* should be followed.

Refrigeration plant must be installed and tested by a qualified engineer.

#### 6.1.3.3 CHILL STORAGE

***The chill store must maintain the fish, with the exception of live shellfish, as close to 0°C as possible within the range of 0°C to +4°C. Live shellfish are best maintained within the temperature range +2°C to +8°C.***

***There must be sufficient chill storage capacity to cope with the daily throughput of fish plus any fish held over when the need arises, so that no fish is stored outside of chill storage.***

In a general purpose refrigerated chill store it is recommended that the thermostat is set to give an air temperature of +2°C to avoid freezing the fish.

##### 6.1.3.3.1 Type of chill store

The chill store can depend entirely upon the use of ice to chill the fish, or it can be assisted by refrigeration, or it can depend entirely upon refrigeration. A refrigerated store with ice used within it is highly recommended to satisfy all the requirements of storing wet fish, smoked fish and cooked fish and live shellfish.

Automatic defrost refrigeration systems are recommended.

The store can consist of insulated cabinets or boxes, or be a walk-in room depending upon the capacity required. Cabinets are available with drawers designed for fish storage. Walk-in stores are available as modular units.



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#### **6.1.3.3.2 Construction**

All surfaces of walls, ceilings, doors, etc. should be smooth, impervious, easy to clean. Corrosion-resistant metal or durable plastic are recommended. Insulation should be non-absorbent closed-cell foam, for example expanded polystyrene or polyurethane. Metal linings should be fitted to walls where fish boxes are handled.

For walk-in chills, floors should be non-slip and sloped at an angle of approximately 1 in 100 to a drain fitted with a grating. Recommended materials for floors are corrosion-resistant metal treadplate, grooved tiles or granolithic concrete.

Doors should be fitted with seals, and walk-in or large reach-in chills must be openable from the inside. The fitting of air curtains, plastic doors or strips is recommended for walk-in chills to reduce the entry of warm, moist air.

Storage capacity can be increased by the use of drawers or shelving, preferably made from stainless steel or alternatively plastic or plastic coated metal.

Lighting must be fitted within a walk-in store and it is recommended that it is automatically switched on and off by opening and shutting the door. An overriding light switch must be fitted inside the store in case of emergency. It is recommended that a pilot light is fitted outside of the store which indicates when the door is not shut properly or when the internal light is on.

For refrigerated stores rapid cooling of the air within the store and even distribution of air temperature can be achieved with fan assisted evaporator units, but it is recommended that the airflow across the fish does not exceed 0.3 metres per second to minimise drying out of the fish. Automatic defrost systems are recommended. There must be provision for the drainage of defrost water from the evaporator unit.

Refrigerated stores must be fitted with external temperature dials in a clearly visible location and temperature sensors carefully located within the store away from the door or cooling coils. Sophisticated electronic monitoring and alarm systems are available and their use is recommended.

#### **6.1.3.4 FROZEN STORAGE**

***The cold store must maintain the temperature of the fish at -18°C or lower.***

The capacity required will depend on the nature of the business and will be influenced by factors such as the irregularity of chilled fish supplies, the range of products sold, etc.

Cold stores are designed for maintaining fish temperature, not for freezing fish. If freezing is necessary proper equipment should be installed.

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**6.1.3.5 SI 1970 No. 1172**  
**The Food and Hygiene General Regulations 1970**

**Part III**

*Food to be protected from risk of contamination*

9. A person who engages in the handling of food shall, while so engaged, take all such steps as may be reasonably necessary to protect the food from risk of contamination, and in particular (without prejudice to the generality of the foregoing)

- a) shall not so place the food as to involve any risk of contamination;
- b) shall, before offering any food for sale, ensure that any food which is unfit for human consumption is kept apart from any other food;
- c) shall not in or about any forecourt or yard, place any food lower than eighteen inches from the ground unless it is adequately protected from risk of contamination;
- d) shall ensure where reasonably necessary that open food while exposed for sale or during sale or delivery is kept covered or is otherwise effectively screened from possible sources of contamination;
- e) shall not keep in any food room any animal feed unless it is in a container of such material and so closed as to prevent the risk of contaminating the food in the room;

Provided that paragraph (b) shall not apply where food is intended to be sold by wholesale either by sample or description.

*Carriage and wrapping of food*

12. A person who engages in the handling of food shall not while so engaged

- a) carry any food in a container together with any article from which there is a risk of contamination of the food, or with any live animal or live poultry, without taking all such precautions as are reasonably practicable to avoid risk of contamination, and in particular, (without prejudice to the generality of the foregoing), shall not allow any live animal or live poultry to come into contact with any food;
- b) use for wrapping or containing any open food any paper or other wrapping material or container which is not clean or which is liable to contaminate the food, and shall not allow any printed material, other than printed material designed exclusively for wrapping or containing food, to come into contact with any food other than uncooked vegetables or unskinned rabbits or hares or unplucked game or poultry.

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#### **6.1.3.4.1 Type of cold store**

Domestic-type chest or upright freezers are adequate for storing relatively small quantities of frozen fish. A walk-in cold store should be used for large quantities. Walk-in stores are available as modular units.

#### **6.1.3.4.2 Construction**

The recommendations given for chill stores in section 6.1.3.3.2 apply, except that floor drainage is not recommended for walk-in stores. It is recommended that the floor is sloped at an angle of 1 in 100 to the door to facilitate cleaning out.

It is also recommended that a personnel alarm switch is fitted inside walk-in stores.

#### **6.1.3.5 CHILL DISPLAY FACILITIES**

***The display unit must present the fish prominently and attractively whilst protecting the fish from contamination and maintaining a fish temperature, with the exception of live shellfish, of as close to 0°C as possible within the range of 0°C to +4°C. Live shellfish are best maintained at a temperature of +2°C to +8°C.***

***Poultry, game and other meat products must be displayed separately from fish to avoid cross-contamination.***

The display must be raised at least 0.46 metres (18 inches) from the ground. It is recommended that it is not open to the street and is further protected by transparent screens. Careful siting of the display is essential to reduce the warming effects of draughts and sunlight.

##### **6.1.3.5.1 Type of display**

The display can depend entirely upon the use of ice to chill the fish, or it can be assisted by refrigeration, or it can depend entirely upon refrigeration. An iced display is recommended for wet fish and can be used for smoked fish, cooked fish and live shellfish. A refrigerated slab which cools the fish by direct contact with a refrigerated surface is not recommended as in practice this can tend to slowly freeze the fish resulting in loss of quality. A refrigerated cabinet which chills by cold air circulation is useful for smoked fish and cooked fish and live shellfish which should not come into direct contact with ice. Use of ice within such a cabinet will satisfy all requirements.

It is recommended that live crustacea are displayed in tanks of aerated sea water.

##### **6.1.3.5.2 Iced slabs**

All materials used must be smooth, impervious and easily cleaned.

Slabs should slope at an angle of approximately 1 in 10 to present the fish attractively and also to facilitate the drainage of melt-water. Drains must be wide, unrestricted and free from tight bends.





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The traditional marble or terrazzo slabs are suitable, but expensive, materials. Stainless steel, or reinforced moulded plastic are suitable alternatives but it is recommended that these, particularly stainless steel, are insulated underneath with non-absorbent closed-cell foam to a thickness of at least 50mm to reduce ice loss. All joints should be sealed to prevent seepage of liquids.

Protection of the fish should be given by the use of reinforced glass or clear plastic partitions and screens which can also be used to create a pool of cold, moist air over the fish. The partitions and screens should be of a size and height to prevent contamination by dust, dirt and customers coughing or sneezing over the display.

If the screens are angled away from the customer the problem of glare will be minimised.

#### **6.1.3.5.3 Refrigerated display cabinets**

All materials used must be smooth, impervious and easily cleaned. Stainless steel, durable plastic and plastic coated metal are recommended.

It must be emphasised that a refrigerated cabinet is designed to maintain the temperature of chilled products and cannot be relied on to lower the temperature of fish.

The tub type of cabinet which creates a pool of cool air over the fish is recommended. Cabinets with tiers of open shelves are very sensitive to the effects of draughts and are not recommended. It is recommended that cabinets with shelves have transparent screens or doors fitted to reduce temperature fluctuations. The cabinet structure and reinforced glass or plastic screens or doors should be used to protect the fish from contamination as for iced slabs.

Refrigerated cabinets may be fitted with fans to assist the circulation of chilled air but it is recommended that the air speed across the fish does not exceed 0.3 metres per second to minimise the drying of the fish. Automatic defrost systems are recommended.

Refrigerated cabinets should be fitted with a temperature dial indicating the temperature within the cabinet.

For a general purpose cabinet it is recommended that the thermostat is set to give an air temperature of +2°C to avoid freezing the fish.

Built-in refrigeration units must be carefully sited to ensure all heat produced is dissipated without the danger of heating the fish on display.

#### **6.1.3.6 FROZEN DISPLAY FACILITIES**

***If fish is to be sold in the frozen state then it must be displayed in purpose built units maintaining a fish temperature of -18°C or lower.***

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**6.1.4.2 SI 1970 No. 1172**  
**The Food Hygiene General Regulations 1970**

**Part III**

*Cleanliness of articles and equipment*

7.-(1) Articles or equipment with which food comes into contact, or is liable to come into contact, in the course of a food business shall be kept clean, and with the exception of non-returnable containers, shall be so constructed, be of such materials and be kept in such good order, repair and condition as to:-

- a) enable them to be thoroughly cleaned;
- b) prevent, so far as it is reasonably practicable, any matter being absorbed by them; and
- c) prevent, so far as is reasonably practicable, any risk of contamination of the food.

(2) Without prejudice to paragraph (1), all containers intended for containing food in the course of a food business, whether or not they come into contact, or are liable to come into contact, with food, shall so far as is reasonably practicable, be protected and kept free from contamination.

(3) In determining for the purposes of this regulation whether any article or equipment is clean, regard shall be had to the nature and packing of the food for which the article or equipment is required and to the use which is made of the article or equipment.

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## 6.1.4 Details of equipment and utensils

### 6.1.4.1 PORTABLE THERMOMETER

***An accurate and fast-reading thermometer is essential for checking temperatures throughout the retail operation.***

Temperature is the most important factor affecting the rate of fish spoilage.

It is recommended that a robust, water resistant digital electronic probe thermometer is used with a minimum range of  $-30^{\circ}\text{C}$  to  $+150^{\circ}\text{C}$ . A needle probe gives the fastest response time, usually within 30 seconds, but it must be sufficiently strong to withstand insertion into fish products.

A glass thermometer must not be used because of the danger of breakage.

### 6.1.4.2 PREPARATION AND PROCESSING EQUIPMENT

***All materials in contact with fish must be hygienic, non-absorbent, corrosion-resistant food-grade materials. All surfaces should be smooth, impervious and free from cracks, sharp angles or open seams.***

***Where poultry, game and other meat products are handled on the premises in addition to chilled fish separate equipment must be provided.***

Ease of cleaning is an essential requirement for fish preparation and processing equipment, and materials such as stainless steel or food-grade plastics must be chosen. Wood is not a suitable material as it is porous and cannot be properly cleaned, and also it will crack and splinter.

To prevent cross-contamination separate work surfaces, processing equipment and utensils must be provided for handling meat products. It is not adequate to use the same equipment and simply wash it when changing product.

It is strongly recommended that all preparation and processing equipment is colour coded or otherwise marked, to identify its usage and avoid cross-contamination.

#### 6.1.4.2.1 Work surfaces

The use of stainless steel is recommended for general work surfaces and benches, or alternatively marble or terrazzo. Surfaces used for cutting purposes should be made from high density plastic.

#### 6.1.4.2.2 Processing equipment and utensils

All knives, brushes, buckets etc. must be of stainless steel or durable food-grade plastic. It is recommended that knives have brightly coloured handles so they can be easily seen to minimise dangers of mishandling. Racks should be provided for the safe and hygienic storage of utensils.

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#### 6.1.4.2.3 Food Act 1984

##### Part I

##### *Registration of premises and licensing of vehicles*

16. -(1) Subject to the provisions of this section, no premises shall be used for:-

- a) the sale, or the manufacture for the purpose of sale, of ice-cream, or the storage of ice-cream intended for sale, or
- b) the preparation or manufacture of sausages or potted, pressed, pickled or preserved food intended for sale,

unless they are registered under this section for that purpose by the local authority.

For the purposes of this subsection:-

- (i) "sale" means sale for human consumption, and
- (ii) the preparation of meat or fish by any process of cooking shall be deemed to be the preservation thereof.

(2) A person who uses any premises in contravention of the provisions of subsection (1) of this section shall be guilty of an offence.

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#### **6.1.4.2.3 Specialist processing**

Premises must be registered with the local authority if any cooking process is carried out.

It is strongly recommended that any equipment used for freezing fish, smoking fish, boiling shellfish, or other specialised processes is designed and built by a specialist manufacturer. It is important that the equipment can achieve the temperatures and conditions necessary to produce a safe and desirable product. Manufacturers can advise on the siting, installation and operation of the equipment, including additional requirements for power, ventilation etc. The use of home-made equipment or modified equipment built for other purposes is not recommended.

#### **6.1.4.3 SALES AND DISPLAY EQUIPMENT**

*It is important that this equipment presents a bright attractive image, but it must be made from hygienic, non-absorbent, corrosion-resistant materials which are easy to clean and it must not detract from the chilling and protection from contamination of the fish.*

##### **6.1.4.3.1 Display trays and containers**

It is recommended that trays used for the display of fish are made from stainless steel. For wet fish these must be perforated to allow drainage of melt water. For small shellfish stainless steel tubs can be used.

Stainless steel is preferable to plastic as plastic acts as an insulator between the fish and the ice.

##### **6.1.4.3.2 Decorative material**

Decorative material must not be of an unhygienic nature or restrict the cleaning of the sales area.

Decorative material in the fish display is not recommended unless it can be kept scrupulously clean, and it must not interfere with the chilled airflow in refrigerated cabinets.

##### **6.1.4.3.3 Price tickets and labels**

Self-supporting plastic price tickets and product labels are recommended. Types which clip onto trays are available. They must be clearly legible and display the approved names for species.

##### **6.1.4.3.4 Serving utensils**

The recommendations given for preparation and processing equipment in section 6.1.4.2 apply to serving scoops, tongs, trimming knives and boards. Again it is strongly recommended that separate colour coded utensils are provided to avoid cross-contamination between wet fish, smoked fish, cooked fish, and each type of shellfish.

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#### 6.1.4.3.5 Weights and Measures Act 1985

##### Part II

###### *Weighing or measuring equipment for use for trade*

11.-(1) The provisions of this section shall apply to the use for trade of weighing or measuring equipment of such classes or descriptions as may be prescribed.

(2) No person shall use any article for trade as equipment to which this section applies, or have any article in his possession for such use, unless that article, or equipment to which this section applies in which that article is incorporated or to the operation of which the use of that article is incidental:-

- a) has been passed by an inspector as fit for such use, and
- b) except as otherwise expressly provided by or under this Act, bears a stamp indicating that it has been so passed which remains undefaced otherwise than by reason of fair wear and tear.

17.-(1) If any person uses for trade, or has in possession for use for trade, any weighing or measuring equipment which is false or unjust, he shall be guilty of an offence and the equipment shall be liable to be forfeited.

##### Part IV

###### *General Offences*

28.-(1) Subject to sections 33 to 37 below, any person who, in selling or purporting to sell any goods by weight or other measurement or by number, delivers or causes to be delivered to the buyer-

- a) a lesser quantity than that purported to be sold, or
- b) a lesser quantity than corresponds with the price charged, shall be guilty of an offence.

###### *Miscellaneous and supplementary*

45.-(1) For the purposes of this Part of this Act, without prejudice to any other method of making known to a person the quantity of any goods expressed in a particular manner, that quantity shall be taken to be made known to that person-

- a) if the goods are weighed or otherwise measured or counted, as the case may require, in the presence of that person,
- b) if the goods are made up in or on a container marked with a statement in writing of the quantity of the goods expressed in the manner in question and the container is readily available for inspection by that person, or
- c) upon such a statement in writing being delivered to that person.

46. For the purposes of this Part of this Act, a person shall not be taken to weigh or otherwise measure or count any goods in the presence of any other person unless he causes any equipment used for the purpose to be so placed, and so conducts the operation of weighing or otherwise measuring or counting the goods, as to permit that other person a clear and unobstructed view of the equipment, if any, and of the operation, and of any indication of quantity given by any such equipment as the result of that operation.

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#### **6.1.4.3.5 Weighing equipment**

Scales approved and stamped by Weights And Measures Inspectors must be provided. It is recommended that they are moveable to facilitate cleaning, so the out-of-level type should be used.

The scales must be positioned so that the customer has a clear view of the weighing operation.

It is recommended that their capacity is at least 10 kg with an indicated accuracy of 5g.

The scales must be corrosion-resistant and easily cleaned. It is recommended that the pan is stainless steel and is dished to prevent fish sliding off.

Numerous options are available for electronic balances and it is recommended that taring and zeroing facilities are fitted.

#### **6.1.4.4 CLEANING AND HYGIENE EQUIPMENT**

***Materials and equipment must be provided in order to maintain standards of cleanliness and hygiene.***

##### **6.1.4.4.1 Cleaning materials and equipment**

Materials and utensils must be provided for cleaning the premises and equipment, and for personal hygiene. Details are given in Section 8 *Recommendations for cleaning and hygiene*.

It is also recommended that a portable high pressure washer is provided for cleaning the premises and large items of equipment.





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#### **6.1.4.4.2 First aid kit**

A first aid kit must be provided. Details are given in Section 8 *Recommendations for cleaning and hygiene*.

#### **6.1.4.4.3 Insect killing devices**

It is recommended that an ultra-violet insect attraction and killing device is fitted in each room in which food is handled. For reasons of electrical safety the devices should be positioned at high level, and for reasons of hygiene their positions should be carefully selected to attract insects away from areas where fish is stored, handled or displayed. They should not be positioned above areas where fish is stored, handled or displayed, or close to windows.

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# 6 Recommendations for premises, vehicles and equipment

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## 6.2 Recommendations for mobile shops and market stalls

### 6.2.1 The importance of design

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#### 6.2.2.13 Sinks and wash-hand basins

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6.2.3.1.1 Ice capacity

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### 6.2.4 Details of equipment and utensils on vehicles and stalls

#### 6.2.4.1 Portable thermometer

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- 6.2.4.2 Preparation and serving equipment and utensils
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6.2.1

**SI 1966 No. 791**

**The Food Hygiene (Markets, Stalls and Delivery Vehicles) Regulations 1966**

Part II

*Food business not to be carried on from insanitary stalls or delivery vehicles*

4. No food business shall be carried on at or from any stall which is insanitary or which is so situated or constructed, or is in such a condition that the food is exposed to the risk of contamination; and in the course of a food business no delivery vehicle shall be used which is insanitary or which is so constructed, or is in such a condition, that the food is exposed to the risk of contamination.

*Cleanliness of equipment, etc.*

6.-(1) Articles or equipment with which food comes into contact, or is liable to come into contact, in the course of a food business shall be kept clean and shall be so constructed, be of such materials and be kept in such good order, repair and condition as to –

- a) enable them to be thoroughly cleaned, and
- b) prevent, so far as is reasonably practicable, any matter being absorbed by them and any risk of contamination of the food.

**Food Act 1984**

Part I

*Control of food premises*

21.-(1) Where on an information laid by a local authority a person is convicted of an offence under regulations made under section 13 and the offence includes:-

- a) the carrying on of a food business at any insanitary premises or at any premises the condition, situation or construction of which is such that food is exposed to the risk of contamination, or
- b) the carrying on of a food business on, at or from a stall which is insanitary, or which is so situated or constructed, or is in such a condition that the food is exposed to the risk of contamination,

then subject to subsection (2), if the court is satisfied that:-

- (i) food continues or is likely to continue to be prepared, stored, sold or offered or exposed for sale at those premises or on, at or from that stall, and
- (ii) by reason of the situation, construction or insanitary or defective condition of the premises or stall or the insanitary or defective condition of the fittings or fixtures or equipment or the infestation of vermin or the accumulation of refuse, the carrying on of a food business at those premises or on, at or from that stall would be dangerous to health,

the court may on the local authority's application, whether or not it makes any other order, by order, (called "a closure order") prohibit the preparation, storage, sale or offer or exposure for sale at those premises or on, at or from that stall of food until the local authority certifies under subsection (4) that such specified measures as the court considers necessary to remove the danger to health have been carried out.



## 6.2 Recommendations for mobile shops and market stalls

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### 6.2.1 The importance of design

***Attention given to the design and layout of vehicles and stalls and to facilities provided in support at the base or depot will contribute greatly to the smooth running and success of the business. Layouts should enable each of the separate operations required in fish retailing to be carried out efficiently without interference and without contamination of the product. The facilities should maintain the chilling and protection of the fish throughout. The retail outlet should present a clean, bright and attractive image to the customer and stimulate sales.***

#### 6.2.1.1 FUNCTION AND LAYOUT

***The major functions carried out vary with each type of trader but can include fish reception, or fish collection and delivery (possibly over long distances), will include fish storage, display, sale, and waste disposal, can include some degree of processing (using base facilities), and will include storage and transport of the vehicle or stall itself.***

***It is essential that the sales unit and the support facilities are designed or chosen to meet the particular requirements of each type of trader. The operating patterns and practices of traders that determine these requirements are wide ranging but it is convenient to categorise traders as those operating vehicles door-to-door, those operating vehicles at markets or fixed pitches, and those operating market stalls. Their requirements are quite different, particularly with regard to: the type of sales unit, storage and display of fish, and provision of sales points.***

##### 6.2.1.1.1 Vehicles for door-to-door trading

In essence door-to-door traders operate a chill storage and delivery service of repeat orders to established customers. Their volume of trade is limited by the number of deliveries possible, and there needs to be less emphasis on fish display and sales points than in other forms of trading.

Vehicles should be manoeuvrable and easy to park. Purpose-built vehicles or customised panel-vans or micro-vans are recommended.

Designs that enable the trader to serve from outside the vehicle are recommended as they allow better utilisation of space on a small vehicle.

A single sales point located at the rear of the van is recommended. Sales points to the side of the van that require the trader or customers to stand in the road in the path of traffic are not recommended for reasons of safety.

##### 6.2.1.1.2 Vehicles for market or fixed-pitch trading

Traders working busy markets and pitches will require larger vehicles than door-to-door traders, and there needs to be greater emphasis on fish display and sales points. Market and fixed-pitch traders still operate a chill storage and delivery service to the sales site, but their display of fish is much more of an inducement to purchase and this should be reflected in the design and the area allocated to display.



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Larger purpose-built vehicles or trailers, or customised panel vans are recommended.

Service can be from inside or outside of the vehicle.

The option of a second or even third sales point on each vehicle is recommended for traders with a high volume of trade or for traders working a number of markets with different layouts.

#### **6.2.1.1.3 Market stalls**

Market stall traders need to place emphasis on the display of fish, but it remains essential that facilities are provided for the chill storage and delivery service to the sales site.

The design and construction of market stalls must provide protection for the fish from the weather and from contamination, and should enable easy cleaning. Stalls which are not fixed in position should be designed for easy transportation to or from the pitch, simple and quick erection and dismantling, stable and safe operation (particularly in high winds), and a minimum of storage space when not in use.

It is recommended that the staff serve from within the stall at the back, and that the back of the stall and both sides as well as the top are fully covered. This arrangement enables effective screening of the display at the front, and provides a protected area for the staff and their equipment.

#### **6.2.1.1.4 Support and base facilities**

It is convenient for traders to operate from merchants' or mongers' premises and utilise the facilities available at those premises.

Traders require a supply of ice, an area to wash down and store the vehicle or stall, and waste disposal facilities. If fish is received, rather than collected, then reception facilities are required.

If any preparation and processing operations are to be carried out, other than trimming and portioning at the point of sale, then it is strongly recommended that these operations are carried out at base and not on the vehicle or stall because of the limited availability of facilities on the vehicle or stall.

If any frozen fish is to be stored then this should be in a cold store at base.

Market stall traders require a support vehicle to carry the stall, equipment and fish to and from the pitch, and that vehicle can usefully provide back-up chill storage by the pitch.

#### **6.2.1.2 MAINTAINING FISH QUALITY**

***The chill storage and display facilities must be designed to maintain all chilled fish at a temperature as close to 0°C as possible within the range 0°C to +4°C. It is recommended that this is best achieved by the use of ice. Mechanical refrigeration is not recommended in most circumstances, except at base, because of the problems of obtaining continuous power supply and of reliability in arduous conditions, and of the possibility of freezing the fish. Live shellfish are best held within the temperature range +2°C to +8°C.***



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There must be sufficient chill storage capacity to cope with the daily throughput of fish plus any fish held over when the need arises, so that no fish is stored outside of chill storage.

Insulated iced storage facilities must be provided for the purposes of receiving or collecting fish, for transporting and storing fish prior to display and sale, and for holding any fish not sold.

For door-to-door vehicles a deep trunk is recommended for the combined bulk storage and delivery of wet fish in ice.

For market or fixed-pitch vehicles and market stalls the provision of a separate insulated storage compartment or container(s) is recommended for the iced storage of product prior to display, from which product can be taken to replenish display stock as it is sold during the day. This facility enables better temperature control on sales units that are typically of open design.

Fish on display is particularly vulnerable to temperature rises, and is often found at temperatures in excess of +4°C. For market or fixed-pitch vehicles and for market stalls with relatively large displays the design and icing of the display are crucial in maintaining quality.

Vehicles incorporating large window areas are not recommended as their internal temperature can be significantly raised by a 'greenhouse effect' in sunny conditions. It is recommended that vehicle bodies are insulated to reduce temperature rises.

Canopies must be provided by market or fixed pitch traders to protect fish on display and also equipment and utensils from the warming effect of direct sunlight.

If frozen fish is stored then the facilities must be designed to maintain the fish at a temperature of -18°C or lower.

#### **6.2.1.3 CLEANING AND HYGIENE**

***Vehicle and stall traders must operate to the same high standards of cleaning and hygiene as other fish retailers.***

***A smooth, durable, impervious and hardwearing finish should be specified for all surfaces. Food-grade materials must be specified for all surfaces and for all equipment and utensils which come into contact with fish. Wood is not suitable for these surfaces.***

***Equipment and utensils must be designed so that they can be easily cleaned, without crevices or corners which act as dirt traps.***

***The vehicle or stall and support and base facilities must protect the fish and equipment from vermin and from contamination throughout the cycle of operations.***

Stainless steel is recommended for many surfaces and items of equipment. Various grades are available, and grade 18/8 is recommended as one of the grades suitable. This grade is protected by a self-repairing film of chromium oxide, although constant use of hard abrasives will wear away the surface.

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**6.2.2.1 SI 1966 No.791**  
**The Food Hygiene (Markets, Stalls and Delivery Vehicles) Regulations 1966**

**Part IV**

*General requirements relating to stalls and delivery vehicles*

13.-(1) Where a stall or delivery vehicle is used in the carrying on of a food business, it shall have displayed conspicuously and legibly upon it -

- a) the name and address of the person carrying on that business, and
- b) (except in the case of a vending machine) any other address at which it is kept or garaged, unless it bears a fleet number and is kept or garaged on that person's premises and the local authority is so notified.

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Installed equipment should preferably be removable for cleaning, or otherwise sealed to prevent the accumulation of debris beneath or behind.

A light colour scheme is recommended to show up dirt and make cleaning easier.

Vehicles and trailers must be such that the load is totally covered when in transit or storage with no access for flies, dirt or dust. Support and base facilities must provide similar protection.

The overall layout of the facilities must ensure that there is no cross-contamination between fish and waste materials, and also that there is no cross-contamination between the various types of fish and products. In particular live shellfish must be kept separately, and cooked products, including hot smoked fish, must be separated from uncooked fish. Separate facilities must be provided for poultry, game and other meat products.

Fish on display are particularly vulnerable to contamination, and again the design of the display is crucial. To avoid contamination, fish should be served to one side of, not over, the display.

Wash facilities must be provided adjacent to the sales area, but not so that washing water may splash on the fish.

An offal bin must be provided adjacent to the cutting area, but not so that there is any possibility of contamination of the fish.

#### **6.2.1.4 AN ATTRACTIVE IMAGE**

***Well laid out, bright, clean and fresh looking vehicles and stalls present an attractive image that will stimulate sales.***

Attention should be paid to the decor of vehicles and stalls, and it is recommended that provision is made for the display of promotional material.

### **6.2.2 Details of vehicles and stalls**

#### **6.2.2.1 MARKING AND REGISTRATION**

***Traders must clearly mark their name and address on vehicles and stalls, and may be required to register vehicles and stalls with the local authority in each of the areas in which they trade.***

Any other address at which a vehicle or stall is kept or garaged, or a number in the case of a fleet vehicle, must also be clearly marked on the vehicle or stall.

Local authorities have the power to demand the registration of hawkers and the payment of a fee, and to create bye laws for the operation and control of markets.

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## **Food Act 1984**

### **Part I**

#### *Hygiene*

15. A local authority may make byelaws for securing the observance of sanitary and cleanly conditions and practices –

- a) in connection with the handling, wrapping and delivery of food sold or intended for sale for human consumption; and
- b) in connection with the sale or exposure for sale in the open air of food intended for human consumption.

### **Part IV**

#### *Sale of food by hawkers*

64. –(1) In any areas in which this and the following sections of this Part are in force –

- a) no person shall hawk food unless he is registered under those sections by the local authority for the area; and
- b) no premises shall be used as storage accommodation for any food intended for hawking unless the premises are so registered.

This subsection applies to a person who hawks food as an assistant to a person registered under those sections unless –

- (i) he is normally supervised when so doing; or
- (ii) he assists only as a temporary replacement.

(2) For the purposes of those sections a person hawks food if for private gain –

- a) he goes from place to place selling food or offering or exposing food for sale, or
- b) he sells food in the open air or offers or exposes food for sale in the open air, unless he does so as part of, or as an activity ancillary to, a trade or business carried on by him or some other person on identifiable property.

66. –(3) A local authority may charge such reasonable fees as they may determine for registration under this part.

## **6.2.2.2 SI 1966 No.791**

### **The Food Hygiene (Markets, Stalls and Delivery Vehicles) Regulations 1966**

#### **Part II**

#### *Cleanliness of equipment, etc.*

6. –(1) Articles or equipment with which food comes into contact, or is liable to come into contact, in the course of a food business shall be kept clean and shall be so constructed, be of such materials and be kept in such good order, repair and condition as to–

- a) enable them to be thoroughly cleaned, and
- b) prevent, so far as is reasonably practicable, any matter being absorbed by them and any risk of contamination of the food.



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#### **6.2.2.2 MATERIALS AND DETAILS OF CONSTRUCTION**

***All surfaces must be smooth, impervious and easy to clean. Surfaces which may come into contact with fish must be made from food-grade materials.***

***Any wood used for frames, trestles, etc., which has exposed surfaces must be finished in a hard gloss paint.***

***Fittings should be of corrosion-resistant material which is easy to clean and does not require painting.***

***Design details should be simple and unadorned to facilitate cleaning.***

Glassfibre reinforced plastic is recommended for many components. Preferably this material should be laminated over purpose-built moulds to ensure a smooth surface finish. If laminated in-situ care must be taken to create a smooth surface well coated in resin.

Stainless steel and food-grade plastics are recommended for surfaces coming into contact with fish. Wood is not a suitable material as it is porous and cannot be properly cleaned, and also it will crack, and splinter.

Insulation materials must be non-absorbent. Closed-cell plastic foam, such as polystyrene or polyurethane (which can be foamed in-situ) is recommended.

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**6.2.2.3 SI 1966 No.791**

**The Food Hygiene (Markets, Stalls and Delivery Vehicles) Regulations 1966**

Part IV

*General requirements relating to stalls and delivery vehicles*

13.-(3) No stall or delivery vehicle shall be used as a sleeping place, except that any driving compartment may be so used if there is a division effectively separating it from the compartment in which food is carried.

**6.2.2.4 SI 1966 No.791**

**The Food Hygiene (Markets, Stalls and Delivery Vehicles) Regulations 1966**

Part II

*Conditions of land, vehicles, etc., used for sale or delivery of food*

5.-(1) Every stall at or from which there is carried on any food business and every delivery vehicle which is used in the course of a food business shall be kept clean and in such good order, repair and condition as to enable it to be effectively cleaned.

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#### **6.2.2.3 SEPARATION OF DRIVING CABS AND SLEEPING ACCOMMODATION**

***Traders must not sleep in stalls or vehicles except in a separate driving cab.***

***It is strongly recommended that vehicle driving cabs are partitioned off from all areas in which fish is stored, handled and displayed.***

Separating the driving cab reduces the risk of contamination, protects the fish from the movement of warm air when the cab doors or windows are opened, and protects the fish from the greenhouse effect of windscreen and windows in sunny weather.

#### **6.2.2.4 VEHICLE LININGS**

***Compartments in which fish is stored, handled or displayed must have smooth, washable linings without crevices or corners which act as dirt traps.***

Glassfibre reinforced plastic laminated in-situ, or purpose-built mouldings, that are joint-free are recommended.

If the linings consist of panels then joints should be sealed with flexible sealant to prevent seepage.

#### **6.2.2.5 VEHICLE FLOORS**

***For walk-in vehicles floors must be even, impervious to water, non-slip when wet, and easy to clean. Junctions at edges should be coved to a height of 15cm.***

Recommended materials include glassfibre reinforced plastic laminated in-situ over marine plywood, polymer floorings based on derivatives of epoxy, polyester and polyurethane resins again cast in-situ, and aluminium treadplate or heavy duty PVC or rubber composition sheeting laid in one piece and sealed at the edges. Fillers should be incorporated in plastic or rubber materials to provide non-slip properties.

The use of matting, which can entrap dirt and liquids and is difficult to clean, is not recommended.

#### **6.2.2.6 VEHICLE INSULATION AND EXTERNAL FINISH**

***To protect the fish from temperature rise it is recommended that vehicle bodies are insulated and have a light coloured external finish.***

A sandwich form of construction is recommended with a layer of insulation between the external skin and inner lining of the vehicle.

A light coloured external finish absorbs less heat from direct sunlight than a dark coloured finish.

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**6.2.2.7 SI 1966 No.791**  
**The Food Hygiene (Markets, Stalls and Delivery Vehicles) Regulations 1966**

Part II

*Food business not to be carried on from insanitary stalls or delivery vehicles*

4. No food business shall be carried on at or from any stall which is insanitary or which is so situated or constructed, or is in such a condition, that the food is exposed to the risk of contamination; and in the course of a food business no delivery vehicle shall be used which is insanitary or which is so constructed, or is in such a condition, that the food is exposed to the risk of contamination.

Part IV

*General requirements relating to stalls and delivery vehicles*

13.-(2) No stall or delivery vehicle when not in use shall be stored with any food except under arrangements where the food can be kept clean and free from contamination, and no stall (whether or not wholly or partially dismantled) or delivery vehicle shall be stored in any place liable to render it insanitary or incapable of being properly cleaned.

**6.2.2.9 SI 1966 No. 791**  
**The Food Hygiene (Markets, Stalls and Delivery Vehicles) Regulations 1966**

Part IV

*Covering of stalls*

21. Every stall at or from which open food other than raw vegetables is sold or exposed for sale for human consumption shall, if not in an enclosed and covered market, be suitably covered and screened, at the sides and back thereof in such a manner as to prevent any mud, dust, dirt, filth or other contaminating substance from being deposited upon any open food thereon:

Provided that this regulation shall not apply to any stall which is so designed, constructed and operated that all food therein is completely enclosed until it is taken from its enclosure to be sold or cooked for immediate consumption.

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#### **6.2.2.7 VEHICLE DOORS, WINDOWS AND OTHER OPENINGS**

***Doors and opening windows must be a good tight fit, and tight fitting covers must be provided for unglazed windows to exclude vermin, dirt and dust when the vehicle is in transit or not in use.***

***Windows must be fitted with canopies or blinds to protect fish on display from direct sunlight and to minimise temperature rise within the vehicle.***

It is recommended that seals are fitted to all doors, opening windows and covers.

Large top-hinged side panels fitted over windows are recommended for market or fixed-pitch vehicles to provide protection from contamination when in transit or parked, and to serve as canopies protecting fish and customers from the weather when operating at the pitch. These panels also provide added security to the vehicle when parked.

For door-to-door vehicles which do not require fish display, other than when the serving door is open, it is recommended that there are no windows.

#### **6.2.2.8 VEHICLE VENTILATION**

***It is recommended that a roof vent is provided to reduce the build-up of odours and hot air within the vehicle.***

The vent must be fitted with an insect screen, must not admit rain, and must be of a type designed to exclude dirt and dust when the vehicle is in transit.

Additional ventilation is required for water heaters as described in Section 6.2.2.12 *Water supplies*.

#### **6.2.2.9 THE COVERING OF STALLS**

***Stalls must be fitted with a superstructure covered with impervious material to protect the fish from contamination. It is recommended that the top, back and sides of stalls are fully covered.***

***The covering material must be easily cleaned, and to protect the fish from the warming effects of direct sunlight must be opaque and should be light in colour.***

***The covering must extend to form a canopy over the fish on display.***

Heavy duty reinforced PVC is recommended for the covering material.

The top covering of the stall should be well supported and sloped so that rain water drains off the back or sides of the stall away from the customer.

Extending the covering to form a canopy also provides shelter for the customer.

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**6.2.2.10 SI 1966 No.791**

**The Food Hygiene (Markets, Stalls and Delivery Vehicles) Regulations 1966**

Part III

*Food to be protected from risk of contamination*

7. A person who engages in the handling of food shall, while so engaged, take all such steps as may be reasonably necessary to protect the food from the risk of contamination, and in particular (without prejudice to the generality of the foregoing)–

- c) shall not, in or about any forecourt, yard, market or stall, place any food lower than eighteen inches from the ground unless it is adequately protected from risk of contamination.

**6.2.2.11 SI 1966 No.791**

**The Food Hygiene (Markets, Stalls and Delivery Vehicles) Regulations 1966**

Part IV

*Lighting*

19. Suitable and sufficient means of lighting shall be provided at every stall from which a food business is carried on, and every such stall shall be suitably and sufficiently lighted.

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#### 6.2.2.10 THE INTERNAL STRUCTURE OF STALLS

***Framework, trestles, surfaces or tables must be provided to raise all facilities, equipment and utensils off the ground to avoid contamination and for convenience of use.***

Simple frameworks, supporting lightweight food-grade surfaces, which readily dismantle for washing, transport and storage are recommended.

Stainless steel and smooth moulded glassfibre reinforced plastic surfaces are recommended.

To avoid contamination open food must be raised at least 0.46 metres (18") from the ground, but it is recommended that the preparation, display, sales and washing facilities are all raised further to a convenient working height for the trader and in so doing this provides additional protection.

#### 6.2.2.11 ELECTRICAL POWER SUPPLIES AND LIGHTING

***For reasons of safety low voltage power supplies are recommended. Equipment running off 12V DC is readily available. Otherwise great care must be taken to ensure that cables, junction boxes, fittings and switches are waterproof and undamaged.***

***Good lighting is necessary for vehicles and stalls to be attractive to the customer, safe for the staff to operate and easy to clean. Natural lighting will often suffice during daylight hours, but care must be taken to avoid the heating effects of direct sunlight. Fluorescent lights are recommended as these lights produce less heat than conventional tungsten filament lights, and consume less electricity. Low heat output halogen spot lights are recommended for display illumination. All light fittings should be of simple design, corrosion-resistant and easily cleaned. Fittings should prevent broken glass falling onto the fish.***

It is difficult to maintain the electrical safety of high voltage systems in a market environment, particularly in wet weather. Suitable high efficiency, corrosion-resistant 12V fluorescent lights are manufactured for marine use. Halogen lights commonly operate at 12V.

Excessive lighting will heat up the fish on display, even if efficient fluorescent or halogen lights are used.

A white internal finish to vehicles and stalls will assist in achieving good lighting with the minimum of electrical power.

To enhance the illumination of the display, tubes or bulbs of a natural daylight colour are recommended.

Tungsten filament lights, gas or oil lamps are not recommended because of their heat output.

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**6.2.2.12 SI 1966 No. 791**

**The Food Hygiene (Markets, Stalls and Delivery Vehicles) Regulations 1966**

**Part IV**

*Supply of water*

15. Subject to the provisions of regulation 24 and any certificate of exemption, a supply of clean and wholesome water sufficient in quantity to enable these regulations to be complied with shall be provided and maintained in connection with every market or stall at or from which a food business is carried on and every delivery vehicle.

*Wash-hand basin to be provided*

16.-(1) Subject to the provisions of regulation 24 and of any certificate of exemption, there shall be provided at every stall from which a food business is carried on and on every delivery vehicle suitable and sufficient wash-hand basins for the use of all persons engaged in the handling of food on or about the stall or delivery vehicle, and such basins shall be maintained in a position conveniently accessible to those persons.

(2) Subject as aforesaid, there shall be provided and maintained for every such wash-hand basin an adequate supply of hot water at a suitably controlled temperature.

*Facilities for washing and sorting food and equipment*

18. Subject to the provisions of regulation 24 and of any certificate of exemption –

- a) there shall be provided and maintained at every stall from which a food business is carried on and on every delivery vehicle suitable and sufficient sinks or other facilities (not being wash-hand basins available for the purposes mentioned in regulation 16) for washing food and equipment used in the food business;
- b) there shall be provided and maintained for every such sink or other facility an adequate supply of either hot and cold water or of hot water at a suitably controlled temperature, except that a supply of cold water shall suffice –
  - (i) where the facility consists of apparatus designed for the washing of drinking vessels with a suitable bactericidal agent and is used only for that purpose,
  - or
  - (ii) where the sink or other facility is used only for the washing of fish, fruit or vegetables;



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#### **6.2.2.12 WATER SUPPLIES**

***Supplies of hot and cold water must be provided on vehicles and stalls.***

***Cold water is recommended for washing fish, but a constant supply of hot and cold water is necessary for washing hands and equipment. It is recommended that the hot water supply is at +60°C or above for the effective washing of equipment and utensils.***

***It is recommended that a total initial supply of water of at least 9 litres (2 gallons) per person per day is carried in tanks or containers on the vehicle or stall. Half the total will be for the cold supply and half for the hot supply. It is recommended that a heater is provided to ensure a constant supply of hot water. Reliance on insulated tanks or flasks alone to maintain the temperature of previously heated hot water supplied to the vehicle or stall is not adequate.***

***All water used must come from a public mains supply.***

A hot water temperature of +60°C or above is necessary to kill bacteria on equipment and utensils.

To avoid scalding the water for hand washing should be reduced in temperature to about +40°C.

For door-to-door traders it is recommended the hot water is provided by a heat-exchange system working from the vehicle's engine, provided that in the course of its normal operation it can maintain a supply of hot water in excess of +60°C throughout the day. Alternatively hot water may be supplied by means of a gas or electrical heater. If a gas heater is used a spare cylinder should be carried on the vehicle.

For market or fixed pitch traders a gas or electrical heater is recommended.

Insulated tanks or flasks cannot be relied upon to maintain water temperature and will not cater for any exceptional requirement for hot water.

The installation of gas cylinders in confined spaces on vehicles can present a danger of fire or explosion. Large cylinders should be located in a separate compartment vented at the base to allow any gas leakage to drain (the gas is heavier than air). Similarly gas heaters should be located in a well ventilated position.

Care must be taken to ensure that heat from heaters and any hot water storage tanks does not raise the temperature of the fish. The careful location of heaters and tanks, the provision of ventilation to allow hot air to escape, and insulation all contribute.

#### 6.2.2.13 SI 1966 No. 791

##### **The Food Hygiene (Markets, Stalls and Delivery Vehicles) Regulations 1966**

###### Part IV

###### *Wash-hand basin to be provided*

16.-(1) Subject to the provision of regulation 24 and of any certificate of exemption, there shall be provided at every stall from which a food business is carried on and on every delivery vehicle suitable and sufficient wash-hand basins for the use of all persons engaged in the handling of food on or about the stall or delivery vehicle, and such basins shall be maintained in a position conveniently accessible to those persons.

(2) Subject as aforesaid, there shall be provided and maintained for every such wash-hand basin an adequate supply of hot water at a suitably controlled temperature.

(3) At or near every wash-hand basin available for the use of such persons as are mentioned in paragraph (1) of this regulation, there shall be provided and maintained for the use of those persons adequate supplies of soap or other suitable detergent, nail brushes and clean towels or other suitable drying facilities, which shall be used only for securing the personal cleanliness of those persons.

(4) All wash-hand basins so available shall be kept clean and any working parts thereof shall be kept clean and in efficient working order.

###### *Facilities for washing and sorting food and equipment*

18. Subject to the provisions of regulation 24 and of any certificate of exemption –

a) there shall be provided and maintained at every stall from which a food business is carried on and on every delivery vehicle suitable and sufficient sinks or other facilities (not being wash-hand basins available for the purposes mentioned in regulation 16) for washing food and equipment used in the food business;

b) there shall be provided and maintained for every such sink or other facility an adequate supply of either hot and cold water or of hot water at a suitably controlled temperature, except that a supply of cold water shall suffice-

(i) where the facility consists of apparatus designed for the washing of drinking vessels with a suitable bactericidal agent and is used for that purpose,

or

(ii) where the sink or other facility is used only for the washing of fish, fruit or vegetables;

c) all sinks and other facilities and any working parts thereof used for the purposes of this regulation shall be kept clean and in efficient working order;

d) there shall be provided and maintained for use at all such sinks and other facilities-

(i) adequate supplies of soap or other suitable detergent and of clean cloths; or

(ii) other adequate and suitable cleaning and drying facilities;

#### 6.2.2.14 SI 1966 No. 791

##### **The Food Hygiene (Markets, Stalls and Delivery Vehicles) Regulations 1966**

###### Part IV

###### *Facilities for washing and sorting food and equipment*

18. Subject to the provisions of regulation 24 and of any certificate of exemption-

e) there shall be provided at every stall suitable and sufficient space for the separation of unsound food pursuant to regulation 7(b) and for the disposal of waste;

###### *Accumulation of refuse, etc.*

20. No refuse or filth, whether solid or liquid, shall be deposited or allowed to accumulate at any stall or in any market on or from which a food business is carried on or on any delivery vehicle, except so far as may be unavoidable for the proper carrying on of the trade or business.

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#### **6.2.2.13 SINKS AND WASH-HAND BASINS**

***Vehicles and stalls must be provided with a sink or other facility for the washing of equipment and utensils. If fish is to be washed then a separate sink or other facility is required for that purpose. A separate wash-hand basin must be provided and be used for the purpose of personal hygiene only.***

Separate facilities are required for the washing of fish and equipment to avoid the contamination of fish with detergent.

It is strongly recommended that at least one fixed and drained sink is fitted. If only one fixed bowl is provided then to avoid contamination a separate bowl must be provided for personal hygiene and if fish is to be washed then another bowl must be provided for that purpose. These bowls can be drained via the fixed sink, which must be in a convenient position for usage but not so that washing water can splash on the fish.

Sinks, washing bowls and basins and their draining boards and work surfaces should all have a smooth, hardwearing, even surface. Stainless steel or moulded plastic are recommended.

#### **6.2.2.14 DRAINAGE**

***Liquid waste must not drain onto the road or market place.***

***Unless drainage facilities are provided on the sales pitch all liquid waste must drain to tank(s) or container(s). There must be no possibility of back up from drainage contaminating the fish.***

The provision of removable, translucent plastic jerrycan(s) for the holding of liquid waste, rather than fixed tanks, is recommended. The level of liquid in these containers can be observed to avoid overfilling and they can be easily removed for emptying and washing out, whereas fixed tanks are potentially a source of foul odours.

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**6.2.2.15 SI 1966 No. 791**

**The Food Hygiene (Markets, Stalls and Delivery Vehicles) Regulations 1966**

*Facilities for washing and sorting food and equipment*

18. Subject to the provisions of regulation 24 and of any certificate of exemption-  
e) there shall be provided at every stall suitable and sufficient space for the separation of  
unsound food pursuant to regulation 7(b) and for the disposal of waste:

*Accumulation of refuse, etc.*

20. No refuse or filth, whether solid or liquid, shall be deposited or allowed to accumulate at any stall or in any market on or from which a food business is carried on or on any delivery vehicle, except so far as may be unavoidable for the proper carrying on of the trade or business.

*Receptacle for waste*

22. -(1) Every stall from which a food business is carried on shall be provided with a sufficient number of suitably covered receptacles for waste trimmings, refuse and rubbish. Provided that this paragraph shall not apply to any stall in respect of which contractual arrangements exist for the removal of refuse at sufficient intervals.

(2) Any such receptacles shall be constructed of impervious material maintained in good condition or shall be replaced as often as may be necessary to prevent the accumulation of obnoxious matter; and they shall be kept apart from any open food intended for sale.

(3) Every person engaged in the handling of food at or from any such stall shall place all waste trimmings, refuse and rubbish in the receptacles provided therefor.

(4) Such receptacles shall be sited in accordance with any reasonable directions given by the local authority in that behalf.

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It is recommended that all fixed sinks are plumbed to a container on the vehicle or stall with a capacity at least sufficient to hold all of the wash water from a day's business. It may be impractical to provide storage on the vehicle or stall for all of the melt water from fish storage and display facilities produced in a day's business, in which case it is recommended that drainpipes from these facilities are led to a convenient point and are fitted with valves so that melt water can be periodically drained to separate containers. Ball valves are recommended to avoid blockage. Drainage plumbing must be unrestricted and free from tight bends.

Tanks and containers must be located so that any accidental overflow or spillage drains safely and does not contaminate the fish.

#### **6.2.2.15 WASTE STORAGE**

***Vehicles and stalls must be provided with a receptacle for the storage of offal and other waste. The use of removable bins made from corrosion-resistant metal or plastic is recommended.***

***Bins should be leakproof, with close-fitting lids and have internal and external surfaces which are easily cleaned. Plastic bags may be provided for the storage of waste inside bins but should not be used alone.***

***It is recommended that there is sufficient waste storage capacity to hold all of the waste produced in a day.***

Removable bins are easier to empty and clean than built-in receptacles.

Bins must be positioned so that there is no likelihood of contamination of the fish, either from waste being carried to the bin, or from any leakage from the bin when in position or being removed for emptying.

Fillet boxes are not adequate waste containers.

#### **6.2.2.16 DRY STORAGE**

***Dry areas must be provided for the separate storage of dry goods.***

Dry goods include packaging materials, canned and packaged goods sold, cleaning materials, promotional material, etc.

Storage areas must be well ventilated and well protected from contamination and vermin.

Cleaning materials should be stored separately from food or packaging materials to avoid tainting.



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## **6.2.3 Fish storage and display facilities on vehicles and stalls**

***There must be separate facilities to cope with all the chilled and frozen fish handled. It is not recommended that fish for sale in the frozen state is stored or displayed on vehicles or stalls unless purpose built refrigerated facilities are provided and a power supply can be guaranteed.***

### **6.2.3.1 ICE**

***There must be a plentiful supply of ice at all times for icing fish put into storage or on display and for re-icing as necessary. It is recommended that the trader operating from a base or depot buys a flake ice machine to ensure an independent supply of ice.***

Icing is the best method for cooling wet fish. In addition ice keeps the fish moist and the melt water washes the surface of the fish, keeping it clean and looking fresh.

Ice can be produced as flakes, cubes, tubes or as blocks for crushing. The use of flake ice is recommended because it provides a large surface area for a given weight and it will cool and protect the fish without causing unsightly indentations.

Traders who collect fish from a large port can normally depend upon the availability of ice, other sources can be unreliable especially during periods of peak demand in summer when fish is most vulnerable to temperature rise. An ice machine is best installed at base because of its power and water supply requirements.

All ice used must be produced with water from a public mains supply.

#### **6.2.3.1.1 Ice capacity**

The quantity of ice required will depend upon the type of business, season, and methods of storage and display, but as a guide the approximate total daily requirements will be one third by weight of the daily throughput of fish.

The size and type of ice store required will depend very much on the type of business. A vehicle trader without a base facility who collects fish from a distant port will have to carry sufficient ice for his entire cycle of operation which may last several days, whereas a trader operating for only a few hours away from a base facility with an ice machine will have a relatively small ice storage requirement on the sales unit. A door-to-door trader can conveniently combine fish storage, limited display and ice storage into one heavily iced deep trunk, but a market trader with a display slab will require separate storage for the ice required to set up and maintain the display.

Ice should be held in an insulated chill store and must be protected from contamination by storing in lidded containers made from corrosion-resistant metal or plastic. The containers must have drainage holes.

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**6.2.3.2 SI 1966 No. 791**

**The Food Hygiene (Markets, Stalls and Delivery Vehicles) Regulations 1966**

**Part III**

*Food to be protected from risk of contamination*

7. A person who engages in the handling of food shall, while so engaged, take all such steps as may be reasonably necessary to protect the food from the risk of contamination, and in particular (without prejudice to the generality of the foregoing)-

- a) shall not so place the food as to involve any risk of contamination;
- c) shall not, in or about any forecourt, yard, market or stall, place any food lower than eighteen inches from the ground unless it is adequately protected from risk of contamination, and
- d) shall ensure that open food is kept covered where reasonably necessary with a clean cover while exposed for sale and during sale or delivery.



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### **6.2.3.2 CHILL STORAGE AND DISPLAY**

***The chill store and the display must maintain the temperature of the fish, with the exception of live shellfish, as close to 0°C as possible within the range 0°C to +4°C. Live shellfish are best maintained within the temperature range +2°C to +8°C.***

***There must be sufficient chill storage capacity to cope with all the chilled fish and ice handled so that no fish is stored outside of chill storage.***

***For market and fixed-pitch traders it is particularly important that the display presents the fish prominently and attractively, but in all cases the fish must be protected from contamination.***

***Poultry, game and other meat products must be stored and displayed separately from fish.***

#### **6.2.3.2.1 Types of chill store and display**

On vehicles and stalls it is recommended that both chill store and display depend upon the use of ice to chill the fish. The successful use of mechanical refrigeration is not impossible but in practice is difficult because of the problems of obtaining sufficient and continuous power supply, reliability of operation in arduous conditions, and the possibility of freezing the fish.

Insulated boxes or cabinets, or a built-in insulated compartment are recommended for the storage of fish and ice. For combined storage and display a deep insulated trunk is recommended. For separate display an iced slab is recommended.

#### **6.2.3.2.2 Separate chill store**

The lining surfaces of boxes, cabinets or compartments must be of food-grade materials, and all surfaces must be smooth, impervious and easy to clean. Boxes and cabinets made from corrosion-resistant metal or moulded plastic are available and are recommended. Glassfibre reinforced plastic mouldings are recommended for built in compartments.

For insulation a 50mm layer of non-absorbent closed-cell plastic foam is recommended.

Lids and doors must be close fitting and be fitted with seals. For cabinets and compartments there should be a lip at the bottom of the doorway to prevent melt water spillage.

Drawers and shelves should be fitted in cabinets and compartments to separate products and avoid cross-contamination and to increase storage capacity.

Provision must be made for the drainage of melt water and water used in cleaning the store, as described in Section 6.2.2.14 *Drainage*.



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The provision of lighting may be necessary within cabinets or built in compartments. If fitted it is recommended that it is automatically turned on and off by opening and shutting the door, and that an external pilot light is fitted indicating when the door is not shut properly and the lighting is on.

#### **6.2.3.2.3 Deep-trunk store/display**

Although primarily recommended for small door-to-door vehicles this method can be useful for market or fixed-pitch vehicles. A large central trunk accessed externally from the sides and rear can provide several sales points.

The trunk must have sufficient capacity to hold the fish and all the ice required for storage and display. It may be necessary to carry equal amounts of fish and ice. The depth of fish and ice in the trunk should be less than 0.4 metres to avoid crushing the fish.

The linings of the trunk must be of food-grade material. Glassfibre reinforced plastic mouldings are recommended.

For insulation a 50mm layer of non-absorbent closed-cell plastic foam is recommended. A removable insulated cover for the trunk is recommended for when the fish is in transit or storage.

The open sides of the trunk must be protected from contamination. It may be convenient to locate work surfaces along the sides but there must be a screen or lip to prevent waste, wash water, etc., from spilling into the trunk.

Smoked fish, cooked fish and live shellfish should be placed in separate leakproof containers set into the ice in the trunk, thus avoiding cross-contamination and direct icing. Storing or displaying chilled fish uniced on open shelves above the trunk is not recommended as it is unlikely that temperatures will be maintained within the desired range.

Provision must be made for the drainage of melt water and water used for washing down, as described in Section 6.2.2.14 *Drainage*.

#### **6.2.3.2.4 Iced slab display**

The surface of the slab must be of food-grade material. Stainless steel or glassfibre reinforced plastic are recommended. The underside of the slab, particularly a stainless steel slab should be insulated to reduce ice loss. A 50mm layer of non-absorbent closed-cell plastic foam is recommended.

The slab should slope at an angle of approximately 1 in 10 to present the fish attractively and also to improve drainage. Provision must be made for the drainage of melt water as described in Section 6.2.2.14 *Drainage*.



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Protection of the fish should be given by the use of reinforced glass or clear plastic partitions and screens which can also be used to create a pool of cold, moist air over the fish. The partitions and screens should be of a size and height to prevent contamination by dust, dirt and customers coughing or sneezing over the display.

If the screens are angled away from the customer the problem of glare will be minimised.

#### **6.2.3.3 FROZEN STORAGE AND DISPLAY**

***Any frozen fish stored or displayed on vehicles and stalls must be maintained at a temperature of -18°C or lower.***

***In practice this can be achieved only if purpose built refrigerated facilities and a power supply are provided.***

***The reliance on insulated boxes alone or on intermittent power supplies with mechanical refrigeration is not adequate.***

Temperature fluctuations are harmful to the quality of frozen fish even if the fish is not actually thawed. Fluctuations are inevitable without purpose built refrigerated facilities and, for most facilities, a continuous power supply. Their effect becomes more significant when over a period of time fish remains unsold and is subject to further fluctuations.

Small, but expensive, portable refrigerated boxes capable of maintaining cold storage temperature and operating off a 12V DC supply are available and can be recommended for small scale frozen storage, as for example on door-to-door vehicles. Eutectic refrigeration systems are available which do not require a continuous power supply and which may be suitable for frozen storage.

Refrigeration plant is a source of heat and, on vehicles in particular, must be carefully sited in a well ventilated position where the heat will not warm up the fish.

### **6.2.4 Details of equipment and utensils on vehicles and stalls**

#### **6.2.4.1 PORTABLE THERMOMETER**

***An accurate and fast-reading thermometer is essential for checking temperatures throughout the retail operation.***

Temperature is the most important factor affecting the rate of fish spoilage.

It is recommended that a robust, water resistant digital probe-type thermometer is used with a minimum range of -30°C to +150°C. A needle probe gives the fastest response time, usually within 30 seconds, but it must be sufficiently strong to withstand insertion into fish products.

A glass thermometer must not be used because of the danger of breakage.

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**6.2.4.2 SI 1966 No. 791**  
**The Food Hygiene (Markets, Stalls and Delivery Vehicles) Regulations 1966**

**Part II**

*Cleanliness of equipment, etc.*

6.-(1) Articles or equipment with which food comes into contact, or is liable to come into contact, in the course of a food business shall be kept clean and shall be so constructed, be of such materials and be kept in such good order, repair and condition as to—

- a) enable them to be thoroughly cleaned, and
- b) prevent, so far as is reasonably practicable, any matter being absorbed by them and any risk of contamination of the food.

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#### **6.2.4.2 PREPARATION AND SERVING EQUIPMENT AND UTENSILS**

***It is strongly recommended that preparation on vehicles and stalls is kept to a minimum and is restricted to portioning and trimming as required by the customer.***

***All materials in contact with fish must be hygienic non-absorbent, corrosion-resistant food-grade materials. All surfaces should be smooth, impervious and free from cracks, sharp angles or open seams.***

***Where poultry, game or other meat products are handled separate equipment and utensils must be provided.***

The facilities available on vehicles and stalls, particularly for cleaning and hygiene, are not usually sufficient to support much fish preparation activity.

Ease of cleaning is an essential requirement for fish preparation and serving equipment, and materials such as stainless steel or food-grade plastics must be chosen. Wood is not a suitable material as it is porous and cannot be properly cleaned, and also it cracks and splinters.

Separate work surfaces, equipment and utensils must be provided for handling poultry to avoid cross-contamination of the fish. It is not adequate to use the same equipment and simply wash it when changing product.

It is strongly recommended that all preparation and serving equipment is colour coded, or otherwise marked, to identify its usage and avoid cross-contamination.

##### **6.2.4.2.1 Work surfaces**

Stainless steel or glassfibre reinforced plastic mouldings are recommended for general work surfaces.

Surfaces used for cutting purposes should be made from high density plastic.

##### **6.2.4.2.2 Utensils**

All knives, brushes, buckets, serving scoops, tongs, etc. must be of stainless steel or durable food-grade plastic.

Racks should be provided for the safe and hygienic storage of utensils.

It is strongly recommended that separate colour coded utensils are provided to avoid cross-contamination between wet fish, smoked fish, cooked fish and each type of shellfish.

It is recommended that knives have brightly coloured handles so they can be easily seen to avoid dangers of mishandling.

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**6.2.4.3 SI 1966 No. 791**  
**The Food Hygiene (Markets, Stalls and Delivery Vehicles) Regulations 1966**

**Part II**

*Cleanliness of equipment etc.*

6.-(1) Articles of equipment with which food comes into contact, or is liable to come into contact, in the course of a food business shall be kept clean and shall be so constructed, be of such materials and be kept in such good order, repair and condition as to-

- a) enable them to be thoroughly cleaned, and
- b) prevent, so far as is reasonably practicable, any matter being absorbed by them and any risk of contamination of the food.

**6.2.4.3.4 Weights and Measures Act 1985**

**Part II**

*Weighing or measuring equipment for use for trade*

11.-(1) The provisions of this section shall apply to the use for trade of weighing or measuring equipment of such classes or descriptions as may be prescribed.

(2) No person shall use any article for trade as equipment to which this section applies, or have any article in his possession for such use, unless that article, or equipment to which this section applies in which that article is incorporated or to the operation of which the use of that article is incidental-

- a) has been passed by an inspector as fit for such use, and
- b) except as otherwise expressly provided by or under this Act, bears a stamp indicating that it has been so passed which remains undefaced otherwise than by reason of fair wear and tear.

17.-(1) If any person uses for trade, or has in his possession for use for trade, any weighing or measuring equipment which is false or unjust, he shall be guilty of an offence and the equipment shall be liable to be forfeited.



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#### **6.2.4.3 SALES AND DISPLAY EQUIPMENT**

*It is important that this equipment presents a bright attractive image, but it must be made from hygienic, non-absorbent, corrosion-resistant materials which are easy to clean and it must not detract from the chilling and protection from contamination of the fish.*

##### **6.2.4.3.1 Display trays and containers**

It is recommended that trays used for the display of fish on iced slabs are made from stainless steel. For wet fish these must be perforated to allow drainage of melt water. For small shellfish stainless steel tubs can be used.

Stainless steel is preferable to plastic as plastic acts as an insulator between the fish and the ice below.

Containers embedded in ice in deep trunk store/displays can be of food-grade plastic or stainless steel.

##### **6.2.4.3.2 Decorative material**

Decorative material must not be of an unhygienic nature or restrict the cleaning of the sales area.

Decorative material in the fish display is not recommended unless it can be kept scrupulously clean.

##### **6.2.4.3.3 Price tickets and labels**

Self-supporting plastic price tickets and product labels are recommended. Types which clip onto trays are available. They must be clearly legible and display the approved names for species.

##### **6.2.4.3.4 Weighing equipment**

Scales approved and stamped by Weights and Measures Inspectors must be provided.

The out-of-level type of scale is recommended as this type compensates for differences in level encountered at various sales sites. The scale mechanism should be capable of being mechanically locked in transit to avoid damage.

It is recommended that the scales are movable to facilitate cleaning, but should be held in position during transit.

The scales must be positioned so that the customer has a clear view of the weighing operation.

The scales must be corrosion-resistant and easily cleaned. It is recommended that the pan is stainless steel and is dished to prevent fish sliding off.

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## Part IV

### *General Offences*

28.-(1) Subject to sections 33 to 37 below, any person who, in selling or purporting to sell any goods by weight or other measurement or by number, delivers or causes to be delivered to the buyer-

- a) a lesser quantity than that purported to be sold, or
- b) a lesser quantity than corresponds with the price charged, shall be guilty of an offence.

### *Miscellaneous and supplementary*

45.-(1) For the purposes of this Part of this Act, without prejudice to any other method of making known to a person the quantity of any goods expressed in a particular manner, that quantity shall be taken to be made known to that person-

- a) if the goods are weighed or otherwise measured or counted, as the case may require, in the presence of that person,
- b) if the goods are made up in or on a container marked with a statement in writing of the quantity of the goods expressed in the manner in question and the container is readily available for inspection by that person, or
- c) upon such a statement in writing being delivered to that person.

46. For the purposes of this Part of this Act, a person shall not be taken to weigh or otherwise measure or count any goods in the presence of any other person unless he causes any equipment used for the purpose to be so placed, and so conducts the operation of weighing or otherwise measuring or counting the goods, as to permit that other person a clear and unobstructed view of the equipment, if any, and of the operation, and of any indication of quantity given by any such equipment as the result of that operation.

## 6.2.4.4.1 SI 1966 No. 791

### **The Food Hygiene (Markets, Stalls and Delivery Vehicles) Regulations 1966**

## Part IV

### *Wash-hand basin to be provided*

16.-(1) Subject to the provisions of regulation 24 and of any certificate of exemption, there shall be provided at every stall from which a food business is carried on and on every delivery vehicle suitable and sufficient wash-hand basins for the use of all persons engaged in the handling of food on or about the stall or delivery vehicle, and such basins shall be maintained in a position conveniently accessible to those persons.

(3) At or near every wash-hand basin available for the use of such persons as are mentioned in paragraph (1) of this regulation, there shall be provided and maintained for the use of those persons adequate supplies of soap or other suitable detergent, nail brushes and clean towels or other suitable drying facilities, which shall be used only for securing the personal cleanliness of those persons.

### *Facilities for washing and sorting food and equipment*

18. Subject to the provisions of regulation 24 and of any certificate of exemption-

- a) there shall be provided and maintained at every stall from which a food business is carried on and on every delivery vehicle suitable and sufficient sinks or other facilities (not being wash-hand basins available for the purposes mentioned in regulation 16) for washing food and equipment used in the food business,
- d) there shall be provided and maintained for use at all such sinks and other facilities-
  - (i) adequate supplies of soap or other suitable detergent and of clean cloths; or
  - (ii) other adequate and suitable cleaning and drying facilities;

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#### **6.2.4.4 CLEANING AND HYGIENE EQUIPMENT**

***Materials and equipment must be provided in order to maintain high standards of cleanliness.***

##### **6.2.4.4.1 Cleaning materials and equipment**

Materials and utensils must be provided for cleaning the premises and equipment, and for personal hygiene. Details are given in Section 8 *Recommendations for cleaning and hygiene*.

#### 6.2.4.4.2 SI 1966 No. 791

#### The Food Hygiene (Markets, Stalls and Delivery Vehicles) Regulations 1966

##### Part IV

##### *First-aid materials to be provided*

17. Subject to the provisions of regulation 24 and of any certificate of exemption, suitable and sufficient bandages, dressings (including waterproof dressings) and antiseptics for first-aid treatment shall be provided and maintained at every stall used in the course of a food business and on every delivery vehicle in a readily accessible position for the use of persons engaged in the handling of food on or about the stall or vehicle.

#### 6.2.5.1 Food Act 1984

##### Part I

##### *Hygiene*

15. A local authority may make byelaws for securing the observance of sanitary and cleanly conditions and practices—

- a) in connection with the handling, wrapping and delivery of food sold or intended for sale for human consumption; and
- b) in connection with the sale or exposure for sale in the open air of food intended for human consumption.

##### *Registration of premises and licensing of vehicles*

16. —(1) Subject to the provisions of this section, no premises shall be used for—

- a) the sale, or the manufacture for the purpose of sale, of ice cream, or the storage of ice cream intended for sale, or
- b) the preparation or manufacture of sausages or potted, pressed, pickled or preserved food intended for sale,

unless they are registered under this section for that purpose by the local authority.

For the purpose of this sub-section:—

- (i) "sale" means sale for human consumption, and
- (ii) the preparation of meat or fish by any process of cooking shall be deemed to be the preservation thereof.

(2) A person who uses any premises in contravention of subsection (1) is guilty of an offence.

##### Part IV

##### *Sale of food by hawkers*

64. —(1) In any area in which this and the following sections of this Part are in force—

- a) no person shall hawk food unless he is registered under those sections by the local authority for the area, and
- b) no premises shall be used as storage accommodation for any food intended for hawking unless the premises are so registered.

This subsection applies to a person who hawks food as an assistant to a person registered under those sections unless—

- (i) he is normally supervised when so doing; or
- (ii) he assists only as a temporary replacement.

(2) For the purpose of those sections a person hawks food if for private gain—

- a) he goes from place to place selling food or offering or exposing food for sale, or
  - b) he sells food in the open air or offers or exposes food for sale in the open air,
- unless he does so as part of, or as an activity ancillary to, a trade or business carried on by him or some other person on identifiable property.

66. —(3) A local authority may charge such reasonable fees as they may determine for registration under this Part.

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#### **6.2.4.4.2 First aid kit**

A first aid kit must be provided. Details are given in Section 8 *Recommendations for cleaning and hygiene*.

### **6.2.5 Details of support and base facilities**

#### **6.2.5.1 REGISTRATION**

***Traders may be required by the local authority to register premises in which fish is stored.***

***Any premises in which fish is cooked must be registered with the local authority.***

Local authorities have the power to demand the registration of premises used by hawkers and the payment of a fee, and to create bye laws for the handling of food.

Planning permission is likely to be required for the use of domestic premises.

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**6.2.5.2 SI 1970 No. 1172**  
**The Food Hygiene (General) Regulations 1970**

Part II

*Food business not to be carried on at insanitary premises or place*

6. No food business shall be carried on at any insanitary premises or place or at any premises or place the condition, situation or construction of which is such that food is exposed to the risk of contamination.

**6.2.5.3 SI 1966 No. 791**  
**The Food Hygiene (Markets, Stalls and Delivery Vehicles) Regulations 1966**

Part II

*Food business not to be carried on from insanitary stalls or delivery vehicles*

4. No food business shall be carried on at or from any stall which is insanitary or which is so situated or constructed, or is in such a condition, that the food is exposed to the risk of contamination; and in the course of a food business no delivery vehicle shall be used which is insanitary or which is so constructed, or is in such a condition, that the food is exposed to the risk of contamination.

Part III

*Food to be protected from risk of contamination*

7. A person who engages in the handling of food shall, while so engaged, take all such steps as may be reasonably necessary to protect the food from the risk of contamination, and in particular (without prejudice to the generality of the foregoing)–

- d) shall ensure that open food is kept covered where reasonably necessary with a clean cover while exposed for sale and during sale or delivery;

*Carriage and wrapping of food*

10. A person who engages in the handling of food shall not while so engaged–

- a) carry any food in a vehicle or container together with any article from which there is a risk of contamination of the food, or with any live animal or live poultry, without taking all such precautions as are reasonably practicable to avoid risk of contamination, and in particular (without prejudice to the generality of the foregoing) shall not allow any live animal or live poultry to come into contact with any food;

Part IV

*General requirements relating to stalls and delivery vehicles*

13. –(2) No stall or delivery vehicle when not in use shall be stored with any food except under arrangements where the food can be kept clean and free from contamination, and no stall (whether or not wholly or partially dismantled) or delivery vehicle shall be stored in any place liable to render it insanitary or incapable of being properly cleaned.

**6.2.5.4 SI 1966 No. 791**  
**The Food Hygiene (Markets, Stalls and Delivery Vehicles) Regulations 1966**

Part IV

*General requirements relating to stalls and delivery vehicles*

13. –(2) No stall or delivery vehicle when not in use shall be stored with any food except under arrangements where the food can be kept clean and free from contamination, and no stall (whether or not wholly or partially dismantled) or delivery vehicle shall be stored in any place liable to render it insanitary or incapable of being properly cleaned.

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An even concrete surfaced area with a drainage slope of at least 1 in 100 towards a drain or gully, a water supply and a hose fitted with an adjustable spray nozzle are recommended for washing down. A hot water supply must be available for washing equipment and utensils.

It is recommended that vehicles are parked in a clean off-street area to provide security and avoid contamination.

Stalls and their equipment can be stored within a support vehicle or within a building that provides protection from vermin.







# 7 Recommendations for practices

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## 7.1. Recommendations for shops

### 7.1.1 The basic procedures necessary for quality assurance

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#### 7.1.1.2 Temperature monitoring and control

##### 7.1.1.2.1 Schedule for temperature monitoring and control

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##### 7.1.2.11.1 Labelling

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##### 7.1.2.11.3 Weighing

##### 7.1.2.11.4 Wrapping

#### 7.1.2.12 Waste disposal

#### 7.1.2.13 Close of trading

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#### **7.1.1.1 Food Act 1984**

##### **Part I**

##### *Composition and labelling of food*

2. -(1) If a person sells to the purchaser's prejudice any food which is not-

- a) of the nature of
- b) of the substance, or
- c) of the quality,

of the food demanded by the purchaser, he is guilty of an offence, subject to section 3.

##### *Food unfit for human consumption*

8. -(1) A person who-

- a) sells or offers or exposes for sale, or has in his possession for the purpose of sale or of preparation for sale, or
- b) deposits with, or consigns to, any person for the purpose of sale,

any food intended for, but unfit for human consumption is guilty of an offence.

(2) Where food of which an offence under paragraph (a) of subsection (1) has been committed was sold to the offender by some other person that person is also guilty of an offence.

## 7.1 Recommendations for shops

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### 7.1.1 The basic procedures necessary for quality assurance

***To consistently achieve the desired quality standards the retailer must establish systematic procedures for fish purchase, stock rotation, temperature monitoring and control, the avoidance of contamination, fish inspection, cleaning and hygiene, and equipment maintenance.***

Systematic procedures are necessary to ensure consistent achievement. Depending upon the size and nature of the business, procedures can be based on detailed written schedules of actions to be taken (including record keeping), this being recommended for large supermarket chains with many staff, or can be unwritten but methodically applied schedules automatically carried out by an experienced monger running his own business.

The retailer will need to keep records of purchases, sales and other financial matters. It is recommended that the retailer also keeps records of important technical matters such as equipment maintenance schedules and periodic temperature measurements. The keeping of records should ensure that important periodic actions are not overlooked, should ensure that problems do not develop unnoticed, and should assist the retailer in making management decisions regarding the operation of the business.

Recommended procedures for fish purchase and for cleaning and hygiene are given in Section 5 *Recommendations for purchasing fish* and Section 8 *Recommendations for cleaning and hygiene*.

#### 7.1.1.1 STOCK ROTATION

***To minimise quality loss the retailer must aim for as quick a stock turn-over as possible and to reduce to the minimum the quantity of chilled fish held over from one day to the next.***

***It is recommended that the retailer records the daily sales of each type of fish and product throughout the year as a guide to future ordering.***

***It is recommended that all batches of fish purchased are identified with a date code to assist in stock rotation.***

***Batches of fish must be kept separate so that fish of different quality do not become mixed.***

***The retailer must systematically monitor the quantity and the condition of fish held in stock in order to plan the day to day operation of the business.***

***A flexible approach to selling is required in order to sell fish approaching the minimum freshness standard before it becomes unacceptable.***

***Fish that has deteriorated to a poor freshness quality must not be sold.***



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Labelling batches with the date of packing, freezing or reception assists in stock rotation but does not necessarily indicate the freshness or the available storage life of the fish as these vary with the type of fish and product and with its condition when packed, frozen or received. Labelling must be backed up by the assessment of freshness of samples of the fish.

Recommendations for promoting the sale of fish approaching the minimum freshness standard and for disposing of poor quality fish are given in Section 4 *Recommendations for quality standards*.

#### **7.1.1.2 TEMPERATURE MONITORING AND CONTROL**

***Temperature is the most important factor affecting the rate of fish spoilage, and fish temperature is often found to be too high.***

***All chilled fish should be maintained at a temperature as close to 0°C as possible within the range 0°C to +4°C. Live shellfish are best maintained within the range +2°C to +8°C. Frozen fish should be maintained at a temperature of -18°C or lower.***

***For general purpose refrigerated chill stores and displays it is recommended that thermostats are set to give an air temperature of +2°C around the fish.***

***The retailer must systematically monitor fish and equipment temperatures to ensure that fish are maintained within the correct temperature ranges.***

***If fish or equipment temperatures are incorrect then the causes must be determined and corrective action taken immediately.***

***All fish must be held in chill or frozen storage or display at all times except when being deliberately thawed or briefly when being prepared or processed.***

***Icing is the best means of chilling fish. The retailer must systematically monitor icing levels and re-ice the fish when necessary to ensure that ice is always present.***

Common causes of high fish temperatures include hot weather, using the wrong type of equipment, faulty refrigeration plant, leaving chill store doors open, the exposure of fish on display to warm draughts and radiant heating from direct sunlight and lights and heaters, and ***inadequate icing***. Faulty refrigeration plant can also result in low temperatures and slow freezing which is harmful to fish quality.

Quantities of ice used and thermostat settings may have to be seasonally adjusted. Faulty equipment must be repaired immediately. Lights and heaters may have to be moved or removed and the display itself may have to be moved or otherwise protected.

Air temperatures within refrigerated stores and displays will not necessarily correspond with the values at which thermostats are set or the readings of temperature dials. It is important that air temperatures are measured and thermostats adjusted to achieve the correct air temperature.

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**7.1.1.3 SI 1970 No. 1172**  
**The Food Hygiene (General) Regulations 1970**

**Part II**

*Food business not to be carried on at insanitary premises or place.*

6. No food business shall be carried on at any insanitary premises or place the condition, situation or construction of which is such that food is exposed to the risk of contamination.

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The obvious physical presence of ice surrounding the fish is a clear indication that the fish is being maintained in a chilled environment.

Fish must not be left lying around in ambient conditions as it will rapidly rise in temperature.

#### **7.1.1.2.1 Schedule for temperature monitoring and control**

It is recommended that a daily schedule is established.

Sample fish temperatures should be measured whenever fish is collected or delivered. Throughout the day the temperature dials on storage and display facilities should be checked for deviations from their normal values. At least once per week, and whenever thermostats are adjusted, sample fish and air temperatures should be measured in storage and display facilities. It is especially important to measure the temperatures of smoked fish, cooked fish and live shellfish which are not covered in ice.

Icing levels must be checked, and re-icing carried out if necessary, whenever fish is collected or delivered. At the start and finish of every day of business the icing of fish in chill storage must be checked. Throughout the day fish on display must be re-iced as necessary.

#### **7.1.1.2.2 Periodic temperature surveys**

Seafish surveys have shown that fish and equipment temperatures are often far too high with retailers unaware of this and of the consequences for their business.

It is recommended that the retailer periodically carries out a full temperature survey of the entire retailing operation.

The survey should be carried out at least every six months, in mid-summer and mid-winter, and whenever major alterations are made to the premises.

Air temperatures should be measured throughout the premises. Fish and air temperatures should be measured throughout the storage and display facilities, paying particular attention to the variation in temperature throughout these facilities and to the correspondence to readings on temperature dials. Fish temperatures should be measured throughout the preparation and processing area, particularly as the fish passes through each stage of preparation and processing. Hot and cold water temperatures should be measured.

To enable comparisons between surveys the procedure adopted should be standardised and the results recorded on a log sheet. Details of the measurements necessary will differ from one retail outlet to another, but example procedures and log sheets are given in Appendix V *Temperature surveys*.

#### **7.1.1.3 THE AVOIDANCE OF CONTAMINATION**

***Great care must be taken to protect the fish from external sources of contamination such as dust and dirt, vermin, and the public, also from cross-contamination between the various types of fish and product, and from waste, and from contamination by staff handling the fish.***



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**SI 1970 No. 1172**  
**The Food Hygiene (General) Regulations 1970**

**Part III**

*Food to be protected from risk of contamination*

9. A person who engages in the handling of food shall, while so engaged, take all such steps as may be reasonably necessary to protect the food from risk of contamination, and in particular (without prejudice to the generality of the foregoing)–

b) shall, before offering any food for sale, ensure that any food which is unfit for human consumption is kept apart from any other food.

Provided that paragraph (b) shall not apply where food is intended to be sold by wholesale either by sample or description.

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A visual check will confirm that packs are undamaged and that the fish are free from blemishes, worms, etc. Smelling samples of the fish will give a good indication of freshness and also alert the monger to the presence of taints, etc.

#### **7.1.1.4.1 Schedule for the inspection of chilled fish**

It is recommended that a daily schedule is established.

Each batch of fish purchased must be inspected. At the start of the day each batch of fish held over in chill storage must be inspected. During the day fish being prepared or processed must be inspected by the staff involved. Each batch of fish brought out for display must be inspected. At the end of the day each batch of fish to be held over must be inspected.

#### **7.1.1.4.2 Periodic inspection of frozen stock**

Each batch of fish purchased must be inspected.

It is recommended that all frozen stocks in storage or on display are inspected at weekly intervals.

Fish beyond its storage life that is of poor quality must not be sold.

If packs are damaged or there are signs of dehydration then samples should be thawed for further assessment. Thawed fish must not be re-frozen. Any frozen fish in damaged packs that remains acceptable and that is not required immediately must be re-packed.

#### **7.1.1.5 EQUIPMENT MAINTENANCE**

***All equipment should be checked and maintained according to a schedule to ensure correct operation and to identify faults before they cause a breakdown.***

***The schedule should include the day to day checks and simple maintenance to be carried out by the retailer and longer term specialist maintenance to be carried out by experts.***

***It is recommended that important items of equipment including refrigeration plant and weigh scales are covered by contracts with the suppliers or with specialist maintenance engineers to provide regular inspection and a priority breakdown service.***

Complex items of equipment such as refrigeration plant and electronic weigh scales play a vital role in the retailer's business. They should be operated in accordance with the maker's instructions and maintained by experts. The maker's instructions should form the basis of a maintenance schedule.



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It is recommended that the retailer files records for each important item of equipment. The file should contain the technical details supplied with the equipment and all maintenance records. This can simplify fault finding and replacement part purchase when problems occur, and should warn the retailer when the costs of maintenance and breakdown are becoming excessive and the equipment should be replaced.

Simple daily checks to be carried out by the retailer include the reading of temperature dials and the listening for unusual noises from refrigeration plant. The refrigeration engineer should be consulted if problems are suspected. Periodically refrigeration evaporator units and frozen fish storage and display facilities must be defrosted. The accuracy of weigh scales should be checked daily.

If refrigeration thermostats are readily accessible the retailer can, with care, adjust them if necessary. If there is any doubt about their operation a refrigeration engineer should be called in to make the necessary adjustments.

Cleanliness and tidiness are an aid to maintenance. It is particularly important that the heatflow from refrigeration plant is not restricted by layers of dirt or by stored materials and equipment as the efficiency of operation will be seriously impaired.

## **7.1.2 Details of practices**

### **7.1.2.1 USING A DIGITAL ELECTRONIC PROBE THERMOMETER**

***The frequent use of an accurate thermometer is essential for maintaining fish quality. A digital electronic probe thermometer is recommended.***

The thermometer will not read instantly, it takes a few seconds to settle to a steady reading depending upon the conditions. It will take longer to settle if the probe is moved quickly through a large temperature range, or if measuring air temperatures rather than fish or water temperatures.

To measure chilled fish temperatures the probe should be inserted into the fish and the reading allowed to settle. To measure frozen fish temperatures the probe can be sandwiched between two fish or packs of fish. However it is quite possible, particularly with large fish, that the core temperature is different from the surface temperature. A special probe can be hammered into the fish to measure core temperature. When measuring air temperatures, of chill or frozen stores for example, it is important that any doors or covers, etc., are in place as required and that sufficient time is allowed for the reading to settle. To avoid cross-contamination the probe must be cleaned between measurements of different types of fish and product, particularly before measuring the temperature of cooked products.

Periodically, at least once per week and whenever unusual temperatures are found, the accuracy of the thermometer should be checked. This is done by immersing and stirring the probe in a small container of heavily-iced fresh water. The thermometer should read 0°C to within a fraction of a degree. If it does not, and the battery is in good condition, then the thermometer should be returned to the manufacturer for maintenance and re-calibration. It should be noted that salty or contaminated water or ice can stabilize at a temperature several degrees below zero.

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**7.1.2.2 SI 1966 No. 791**

**The Food Hygiene (Markets, Stalls and Delivery Vehicles) Regulations 1966**

**Part III**

*Food to be protected from risk of contamination*

7. A person who engages in the handling of food shall, while so engaged, take all such steps as may be reasonably necessary to protect the food from the risk of contamination, and in particular (without prejudice to the generality of the foregoing)–

- a) shall not so place the food as to involve any risk of contamination;
- b) shall, before offering any food for sale, ensure that
  - i) any part of that food which is unfit for human consumption is removed, and
  - ii) any food which is unfit for human consumption, unsound or unwholesome is kept apart from any other food;
- c) shall not in or about any forecourt, yard, market or stall, place any food lower than eighteen inches from the ground unless it is adequately protected from risk of contamination and
- d) shall ensure that open food is kept covered where reasonably necessary with a clean cover while exposed for sale and during sale or delivery;

Provided that paragraph (b) of this regulation shall not apply where food is intended to be sold by wholesale either by sample or description.

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#### **7.1.2.2 FISH PURCHASE**

***When purchasing fish the quantities and quality of each species and product must be clearly specified. The requirements for packaging and labelling must be defined, as must the conditions and practices during delivery or collection. All fish must be checked on reception and taken directly to a chill or frozen store or display as appropriate. Chilled fish must be re-iced if necessary.***

Details of the recommendations for purchasing fish and of the practices during delivery or collection and for checking at reception are given in Section 5 *Recommendations for purchasing fish*.

#### **7.1.2.3 THE SUPPLY AND HANDLING OF ICE**

***The retailer must plan ice production or purchase so that there is a readily accessible supply of clean, fresh ice at all times for the retail display and for re-icing of stored fish. Ice should be used in rotation, and to avoid cross-contamination ice must be discarded after use and must never be re-used.***

##### **7.1.2.3.1 Ice supply**

In order that sufficient ice is available throughout the day and especially during periods of peak demand, for example when setting up the display, it is necessary to plan ahead.

An ice machine will give a steady production but will switch off when its storage bin is full. To provide the quantity of ice required it is often necessary to remove ice from the machine for storage elsewhere. By running the machine at night production costs can be reduced by using off-peak power at a discounted tariff.

Where a reliable supply of ice is available and the retailer purchases ice, the same consideration must be given to the hygienic handling and transport of the ice as is recommended for chilled fish.

##### **7.1.2.3.2 Handling and storage of ice**

Ice must be transported and stored in clean containers with lids and drainholes and held in chill conditions. Re-used non-returnable fish boxes are not suitable as they are absorbent and difficult to clean.

Ice exceeding the capacity of the bin of the ice machine should be stored in separate bins in a chill store.

Ice should be used in rotation, especially if large quantities are stored, as certain bacteria grow even on ice and can contaminate fish. Also ice can consolidate into a solid mass during extended storage and then be difficult to break up for use. It is recommended that bins are emptied and cleaned out at least once per week.

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**7.1.2.4.1 SI 1970 No. 1172**  
**The Food Hygiene (General) Regulations 1970**

**Part III**

*Food to be protected from risk of contamination*

9. A person who engages in the handling of food shall, while so engaged, take all such steps as may be necessary to protect the food from risk of contamination, and in particular (without prejudice to the generality of the foregoing)–

- e) shall not keep in any food room any animal feed unless it is in a container of such material and so closed as to prevent the risk of contaminating the food in the room:

*Carriage and wrapping of food*

12. A person who engages in the handling of food shall not while so engaged –

- a) carry any food in a container together with any article from which there is a risk of contamination of the food, or with any live animal or live poultry, without taking all such precautions as are reasonably practicable to avoid risk of contamination, and in particular, (without prejudice to the generality of the foregoing), shall not allow any live animal or live poultry to come into contact with any food;

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Plastic or corrosion-resistant metal scoops or shovels are recommended for handling ice.

#### **7.1.2.4 CHILL STORAGE**

***Care given to the chilling of fish in storage and to the layout of the chill store is essential for reducing quality loss, avoiding cross-contamination, and for stock rotation.***

***Iced storage is recommended for wet fish. To maintain a temperature close to 0°C there must be ice present around the fish at all times.***

***Refrigerated storage is recommended for smoked fish, cooked fish and live shellfish, although ice can be used without direct contact to chill these fish.***

***Batches of fish, and any ice or offal held in store must be kept in separate containers.***

***Batches of fish should be identified with a date code, or stored in specific locations to indicate their age to assist in stock rotation.***

***The doors of chill stores should not be left open or their lights switched on for longer than the minimum time necessary.***

***Thermostats on refrigerated stores must be set to give the required air temperatures of +2°C around the fish.***

Merely placing fish in a chill store will not effectively lower its temperature as chills are designed for storage, not for cooling. Icing will effectively cool fish, but direct contact with ice can result in smoked fish and cooked fish being washed-out by melt water, and can kill live shellfish.

Fish should not be subject to disturbance or pressure during storage which can result in physical damage.

##### **7.1.2.4.1 The use of containers**

Chilled fish may be stored in drawers, plastic boxes or trays depending upon the type of chill store available. Containers for wet fish and live shellfish must have drainholes. Containers for smoked fish and cooked fish should not have drainholes. All containers for fish should preferably be lidded. Containers for ice storage must be lidded and have drainholes. Containers for offal storage must be lidded and leakproof and clearly labelled.

On reception fish may be stored undisturbed in the non-returnable boxes in which it is supplied, re-iced if necessary, provided that the boxes are undamaged. However these boxes must not be re-used for further batches of fish as they are absorbent and difficult to clean.



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- b) use for wrapping or containing any open food any paper or other wrapping material or container which is not clean or which is liable to contaminate the food, and shall not allow any printed material, other than printed material designed for wrapping or containing food, to come into contact with any food other than uncooked vegetables or unskinned rabbits or hares or unplucked game or poultry.

**7.1.2.4.3 SI 1970 No. 1172**  
**The Food Hygiene (General) Regulations 1970**

**Part III**

*Food to be protected from risk of contamination*

9. A person who engages in the handling of food shall, while so engaged, take all such steps as may be reasonably necessary to protect the food from the risk of contamination, and in particular (without prejudice to the generality of the foregoing)–

- a) shall not so place the food as to involve any risk of contamination;
- b) shall, before offering any food for sale, ensure that any food which is unfit for human consumption is kept apart from any other food;
- c) shall not in or about any forecourt or yard, place any food lower than eighteen inches from the ground unless it is adequately protected from risk of contamination;
- d) shall ensure where reasonably necessary that open food while exposed for sale or during sale or delivery is kept covered or is otherwise effectively screened from possible sources of contamination;
- e) shall not keep in any food room any animal feed unless it is in a container of such material and so closed as to prevent the risk of contaminating the food in the room;

Provided that paragraph (b) shall not apply where food is intended to be sold by wholesale either by sample or description.

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#### **7.1.2.4.2 Icing practice**

For whole wet fish a layer of ice should be put in the container, and then the fish laid in rows followed by further ice to completely cover the fish. Gutted fish should be laid belly down to assist drainage, and ungutted fish should be laid belly up to avoid pressure damage to the soft belly. It is recommended that large fish are stored in a single layer. Small fish can be stored in several layers with ice in between the layers to a total depth of fish and ice of no more than 20 cm.

For fillets a layer of ice should be put in the container and covered with a sheet of wet-strength paper or polythene film. The fillets should be laid flat onto the sheet to a depth of fillets no more than 10 cm. The fillets should be covered with another sheet and then completely covered with further ice. The sheets are necessary to prevent the fillets from being softened and marked by melt water and ice.

Containers must not be overfilled with fish and ice to avoid crushing the fish when stacked.

Smoked fish, cooked fish and live shellfish should not be directly covered in ice. If it is necessary to use ice it is recommended that smoked fish and cooked fish are placed in leakproof containers set into the ice with ice built up around the sides of the containers. Unless held in aerated sea water tanks, live crustacea are best densely packed in boxes and covered with wet hessian sacking or similar absorbent material with ice placed on top of the sacking, if necessary, to lower their temperature to below +8°C. Live molluscs are best tightly packed in damp sacks, again with ice placed on top of the sacks, if necessary, to lower their temperature to below +8°C.

The quantities of ice required and the frequency of re-icing necessary will depend upon the conditions. To avoid disturbing the fish, re-icing should consist of top-icing only.

#### **7.1.2.4.3 The layout**

It is recommended that separate areas are allocated for storing fish on reception, for fish ready for display, and for fish to be held over after trading.

Different types of fish and product, and any ice stored in the chill, must be stored separately in clearly designated areas. Under no circumstances must wet fish be allowed to drip or drain onto other types of fish or product or stored ice. It is especially important that products which may be eaten without cooking are protected from contamination to avoid any danger to public health. Smoked fish and cooked fish must be stored above or to one side of wet fish.

If it is necessary to store offal intended for animal feed and it cannot be stored in a separate chill store then it must be kept in clearly marked containers and must be kept well away from fish intended for human consumption.

Containers for fish or ice storage which do not have raised bases should not be placed directly on the chill floor where pools of contaminated melt water can form.



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#### **7.1.2.4.4 Operation of chill store**

Fluctuations in air temperature and entry of warm, moist air should be minimised by keeping main doors closed when the chill is not in use and by ensuring air curtains are not switched off or secondary plastic doors or strips are not removed or held back. Chill lights should be switched off when the chill is not in use.

Warm air will increase the rate of meltage of ice in the chill and any moisture will condense on refrigeration evaporator units leading to a loss of efficiency.

For a refrigerated store the thermostat must be adjusted to give the optimum air temperature around the fish. Air temperatures within the store will inevitably fluctuate within a few degrees as a result of cyclic operation of the refrigeration plant and of door opening, and temperatures will tend to be lower in some parts of the store than others. The thermostat must be adjusted so that the average air temperature around the fish is about +2°C, provided that this does not result in fish in parts of the store being frozen (in which case the average temperature must be raised slightly). It is unlikely that the average temperature will correspond exactly to the value at which the thermostat is set or to the reading on the temperature dial. The retailer should assess the average air temperature by taking a number of air temperatures with the portable thermometer over a period of time. The thermostat can then be adjusted to achieve the correct average. The readings on the temperature dial should be noted, and subsequent changes in the readings should indicate changes in temperature within the store. The assessment of average temperatures is much easier if a portable temperature recorder is available. For small cabinets the door can usually be shut on the wire leading to the thermometer temperature probe without causing damage. Care must be taken to ensure that the thermostat is not set too low as long periods of operation without opening the chill door, for example over a weekend, can result in the temperature dropping below zero.

If the thermostat is readily accessible a retailer familiar with its operation can, with care, make the necessary adjustments. If there is any doubt about its operation a refrigeration engineer should be called in to make any adjustments. Any unaccountable change in the performance of a refrigeration system probably indicates the presence of a fault rather than a need for thermostat adjustment.

The retailer can utilise temperature variations within a store by storing smoked and cooked products, which should not be directly iced, in the coldest parts of the store.

Refrigerated stores must not be overfilled because cold air from the evaporator unit must remain free to circulate around the fish. Boxes of fish should not be stacked hard against the walls. It is particularly important that there is cold air circulation around products which are not iced.

Refrigeration evaporator units must be kept free from the accumulation of ice to maintain the desired air temperature and to operate efficiently. The recommended automatic defrost systems should do this without attention from the retailer, other than ensuring that drainage for defrost water is clear. Manual defrosting will be necessary at periods dependent on the operation of the store. Manual defrosting is best carried out when stocks are low. Chipping of ice with metal instruments is not recommended because of the danger of damaging cooling coils and fins.



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#### **7.1.2.5 FROZEN STORAGE**

***Batches of fish must be kept separate and should be identified with a date code, or stored in specific locations to indicate their age to assist in stock rotation.***

***The doors of frozen stores should not be left open or their lights switched on for longer than the minimum time necessary.***

***The thermostat must be set to give the desired air temperature of -18°C or lower around fish.***

Frozen fish stores are designed for the storage of already frozen fish, not for freezing fish. Freezing fish in a frozen fish store will result in slow freezing which is harmful to fish quality. The slowly frozen product will have increased drip when thawed and a dry and tough texture when cooked.

During long term storage fish should be kept separate from other food to prevent pick-up of odours which can occur even in cold storage.

The operation of a frozen store should be similar to that described for a refrigerated chill store in Section 7.1.2.4.4 *Operation of chill store*. However the thermostat must be adjusted to give an air temperature of -18°C or lower around the fish and manual defrosting of the lining of the store will be required when ice accumulation becomes excessive. Because of the low temperature of operation it is even more important that periods of door opening are minimised, and for large walk-in or reach-in stores the safety of personnel must be a priority. Internal door opening mechanisms and alarm systems must be in working order, and warm protective clothing must be provided for personnel working inside frozen stores. Fish at frozen store temperatures must be handled with insulated gloves.

#### **7.1.2.6 THAWING FROZEN FISH**

***Thawing frozen fish takes time and it is essential to plan ahead.***

***Fish must not be thawed in hot conditions as this can result in the outside of the fish drying out or even spoiling before the centre is thawed.***

***It is recommended that fish is thawed in cool moist air, for example by leaving overnight in a chill store.***

***After thawing fish must be chilled and handled in the same way as fish which has not been frozen, but must be labelled 'previously frozen'.***

It is desirable that fish is thawed completely before being put in a chilled fish display as during thawing frost, condensation and drip can form giving an unattractive appearance. Attempting to fillet partially thawed fish can be hazardous. Forcing apart partially thawed fish which has been frozen in blocks or packs can damage the fish.

Thawing in water must not be used for fillets or smoked or cooked products as the flesh will become waterlogged and flavours and colours will be washed-out. Attempts to speed up the rate of thawing of whole fish by immersing in water can result in waterlogged fish.

**7.1.2.7 SI 1970 No. 1172**  
**The Food Hygiene (General) Regulations 1970**

**Part II**

*Cleanliness of articles or equipment*

7.-(1) Articles or equipment with which food comes into contact, or is liable to come into contact, in the course of a food business shall be kept clean, and with the exception of non-returnable containers, shall be so constructed, be of such materials and be kept in such good order, repair and condition as to—

- a) enable them to be thoroughly cleaned;
- b) prevent, so far as is reasonably practicable, any matter being absorbed by them, and
- c) prevent, so far as is reasonably practicable, any risk of contamination of the food.

*Restriction on preparation and packing of food on domestic premises*

8.-(1) Except as this regulation provides, a person carrying on a food business shall not for the purposes of that business give out any food or permit any food to be given out for preparation or packing by another person at any domestic premises other than those of the person carrying on the business.

(2) This regulation shall not apply in relation to shrimps or prawns which are given out for the purpose of peeling, if the premises at which the peeling is to be carried out (in this regulation called "the relevant premises"), are registered under Section 16 of the Act for the preparation of the food in question and provided that the requirements of sub-paragraph (a), (b) and (c) of this paragraph are complied with by the person carrying on the food business.

- a) before making the arrangements for giving out the food the person carrying on the food business—
  - i) shall satisfy himself that the person to whom he proposes to give out the food is aware of the requirements mentioned in paragraph (3) of this regulation and is able to comply with them; and
  - ii) shall give notice of his intention to make the arrangement to the local authority for the area in which the relevant premises are situated;
- b) shall personally or by an authorised agent visit the relevant premises at intervals of not more than three months and satisfy himself that the person to whom the food has been given out remains able to comply with paragraph (3) of this regulation; and
- c) shall at intervals of not more than six months send to each local authority within whose area any relevant premises are situated a list showing for each of those premises the names of all persons who work there for the purposes of the arrangement.

**Part III**

*Food to be protected from risk of contamination*

9. A person who engages in the handling of food shall, while so engaged, take all such steps as may be reasonably necessary to protect the food from the risk of contamination, and in particular (without prejudice to the generality of the foregoing)—

- a) shall not so place the food as to involve any risk of contamination;
- b) shall, before offering any food for sale, ensure that any food which is unfit for human consumption is kept apart from any other food;
- c) shall not in or about any forecourt or yard, place any food lower than eighteen inches from the ground unless it is adequately protected from risk of contamination;
- d) shall ensure where reasonably necessary that open food while exposed for sale or during sale or delivery is kept covered or is otherwise effectively screened from possible sources of contamination;
- e) shall not keep in any food room any animal feed unless it is in a container of such material and so closed as to prevent the risk of contaminating the food in the room;

Provided that paragraph (b) shall not apply where food is intended to be sold by wholesale either by sample or description.

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Frozen fish should be spread out in the chill on trays to assist thawing and to contain drip which must not contaminate other fish or products.

#### **7.1.2.7 BASIC FISH PREPARATION AND PROCESSING**

***It is recommended that the monger and his staff acquire the skills necessary to gut, fillet, bone, steak and skin the range of species handled.***

***Fish must be moved through preparation and processing with the minimum of delay in order to reduce temperature rises.***

***Preparation and processing areas must be kept clean and tidy to avoid contamination of the fish.***

***Great care must be taken to prevent the cross-contamination from work surfaces and utensils of any fish which may be eaten without cooking.***

***Poultry, game and other meat products must be kept separate from fish and handled using separate equipment and utensils.***

***Fish must not be given out to another person for preparation or packing in domestic premises, with the exception of premises registered for shrimp or prawn peeling.***

When processing large quantities of chilled fish it is recommended that only the quantity that can be dealt with in half an hour is taken from chill.

Whole fish should be rinsed in cold water before processing to remove surface slime and blood. Cold tap water is typically at a temperature of about +10°C and so fish must not be left soaking in water as the fish temperature will rapidly rise and the flesh become soft.

Fish must be inspected whilst they are being individually handled. Fillets should be trimmed to remove fins, bones and discolouration. Any fish which is wormy or in poor condition must be discarded.

All cutting surfaces and utensils must be swilled down periodically and whenever changing from one type of fish or product to another. Knives must be kept sharp. A sharp knife produces a better product than a blunt knife and is safer in use. When not in use, utensils should be hygienically stored in racks.

After preparation all products must be placed in clean boxes or trays and without delay must be returned to chill storage or placed on display and iced as necessary.

Offal must not be allowed to accumulate on work surfaces, in sinks or on the floor. Offal must be placed directly into bins adjacent to the work surfaces, and when those bins are full they must be taken to the waste storage area to be emptied and swilled out.

If there are any breaks in the preparation and processing operations then all the fish must be returned to chill storage and the area swilled down before the break.



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*Accumulation of refuse etc.*

26.-(1) The layout of food premises shall be such as to provide adequate space, suitably sited, for the purpose of the removal of waste from food and the separation of unfit food in compliance with the requirements of regulation 9(b), and the storage of any such waste and unfit food prior to disposal.

(2) No refuse or filth, whether solid or liquid, shall be deposited or allowed to accumulate in a food room except so far as may be unavoidable for the proper carrying on of the trade or business.

#### **7.1.2.8 Food Act 1984**

##### **Part I**

##### *Registration of premises and licensing of vehicles*

16.-(1) Subject to the provisions of this Section, no premises shall be used for:-

- a) the sale, or the manufacture for the purpose of sale, of ice-cream, or the storage of ice-cream intended for sale, or
- b) the preparation or manufacture of sausages or potted, pressed, pickled or preserved food intended for sale.

Unless they are registered under this Section for that purpose by the local authority. For the purposes of this sub-section:-

- i) "sale" means sale for human consumption, and
- ii) the preparation of meat or fish by any process of cooking shall be deemed to be the preservation thereof.

(2) A person who uses any premises in contravention of the provisions of sub-section (1) of this Section shall be guilty of an offence.

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#### **7.1.2.8 SPECIALIST PROCESSING**

***Specialist processing should not be undertaken unless the necessary specialist equipment and skills are available as poor quality or unsafe products can result. If the facilities are not available specialist fish products should be purchased, not produced.***

***If the cooking of any product is carried out the premises must be registered with the local authority.***

It is not the purpose of these Guidelines to give detailed recommendations for specialist processing, but brief details are included to cover freezing, smoking and shellfish cooking.

##### **7.1.2.8.1 Freezing**

Fish approaching the minimum freshness standard should not be frozen because of the quality loss that occurs during freezing, frozen storage and thawing. Fish should be frozen only in purpose-built freezing equipment which subjects the fish to extremely low temperatures resulting in rapid freezing with the minimum of quality loss. Fish must remain in the freezer until it is frozen to the core and its average temperature is  $-18^{\circ}\text{C}$  or lower (the surface will be much colder). Fish should be wrapped after freezing and put into frozen storage without delay.

##### **7.1.2.8.2 Smoking**

Fish approaching the minimum freshness standard should not be smoked as a poor quality product will result. Brines should be made up fresh daily and only approved dyes added if required. Sawdust and woodshavings must be obtained from a reliable source and be free from harmful additives or contaminants. A specially designed kiln should be used that has been professionally installed and commissioned with due regard for ventilation of the premises and for the clean air regulations. During smoking a careful check should be made of air temperature, smoke production and fish drying. After smoking fish must be cooled in air then put into chill storage.

##### **7.1.2.8.3 Shellfish boiling**

Only live shellfish should be processed as most species deteriorate rapidly after death. Prior to boiling, molluscs should be washed and scrubbed to clean thoroughly, and crabs should be killed by spiking or drowning so that they do not shed their claws. The water in the cooker must be brought up to boiling point and then the shellfish immersed for sufficient time to cook and pasteurize the meats. It is essential that the cooker is not overloaded with shellfish as the temperature can fall to an unsafe level. Excessive cooking will result in a tough and less desirable product. After cooking the products should be rapidly cooled by spraying with cold water then placed in chill storage. If picking of meats is carried out on the premises this must be done in a separate designated area used only for that purpose.

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### 7.1.2.9 Food Act 1984

#### Part I

##### *Composition and labelling of food*

2.-(1) If a person sells to the purchaser's prejudice any food which is not –

- a) of the nature, or
- b) of the substance, or
- c) of the quality,

of the food demanded by the purchaser, he is guilty of an offence, subject to Section 3.

##### *Food unfit for human consumption*

8.-(1) A person who–

- a) sells or offers or exposes for sale, or has in his possession for the purpose of sale or of preparation for sale, or
- b) deposits with, or consigns to, any person for the purpose of sale,

any food intended for, but unfit for, human consumption is guilty of an offence.

(2) Where food of which an offence under paragraph (a) of sub-section (1) has been committed was sold to the offender by some other person that person is also guilty of an offence.

### SI 1970 No. 1172

#### The Food Hygiene (General) Regulations 1970

#### Part III

##### *Food to be protected from risk of contamination*

9. A person who engages in the handling of food shall, while so engaged, take all such steps as may be reasonably necessary to protect the food from the risk of contamination, and in particular (without prejudice to the generality of the foregoing)–

- a) shall not so place the food as to involve any risk of contamination;
- b) shall, before offering any food for sale, ensure that any food which is unfit for human consumption is kept apart from any other food;
- c) shall not in or about any forecourt or yard, place any food lower than eighteen inches from the ground unless it is adequately protected from risk of contamination;
- d) shall ensure where reasonably necessary that open food while exposed for sale or during sale or delivery is kept covered or is otherwise effectively screened from possible sources of contamination;
- e) shall not keep in any food room any animal feed unless it is in a container of such material and so closed as to prevent the risk of contaminating the food in the room;

Provided that paragraph (b) shall not apply where food is intended to be sold by wholesale either by sample or description.

### 7.1.2.9.1 SI 1970 No. 1172

#### The Food Hygiene (General) Regulations 1970

#### Part III

##### *Carriage and wrapping of food*

12. A person who engages in the handling of food shall not while so engaged –

- a) carry any food in a container together with any article from which there is a risk of contamination of the food, or with any live animal or live poultry, without taking all such precautions as are reasonably practicable to avoid risk of contamination, and in particular, (without prejudice to the generality of the foregoing), shall not allow any live animal or live poultry to come into contact with any food;

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#### **7.1.2.9 CHILLED DISPLAY**

***An eye-catching colourful display of a variety of species and products attractively laid out is a powerful stimulus to sales. However, fish on display are particularly vulnerable to contamination and to temperature rises.***

***Only sufficient fish to create an attractive display should be laid out, and the display should be replenished during the day as fish is sold.***

***Each batch of fish must be inspected before being placed on display and any fish of poor quality rejected.***

***The layout of the display must protect the fish from contamination and to avoid cross-contamination. If poultry, game and other meat products are sold they must be displayed separately.***

***If carefully done, fish can be laid directly on a bed of ice. Alternatively fish should be laid out on trays or in tubs placed on the ice.***

***To maintain temperatures close to 0°C fish must be laid in a shallow layer on a deep bed of ice, and wet fish must be iced on top and re-iced during the day so that a sprinkling of top-ice is always present.***

***It is recommended that even in refrigerated display cabinets fish are laid out on a bed of ice.***

***Thermostats on refrigerated cabinets which chill by cold air circulation must be set to give the desired air temperature of +2°C around the fish.***

The skill necessary to create an attractive display cannot be taught in these Guidelines but should be developed by the retailer. The use of a range of fish and product types and colours including interesting types of whole fish assists, but all the fish must be in acceptable condition and their layout must comply with the recommendations given to prevent cross-contamination.

Particular care must be taken by systematic temperature measurement to ensure that fish temperatures remain within the desired ranges on display. High temperatures resulting from incorrect lighting, sunlight, warm draughts and from inadequate icing are commonplace.

Ice meltage on display is expected and is necessary to keep the fish moist and the display looking fresh and clean. Care must be taken to ensure that the display unit drainage is clear.

##### **7.1.2.9.1 The use of trays and containers**

Fish laid directly on ice without trays or tubs can, if skilfully done, make a very attractive display with good chilling and drainage of the fish resulting from direct ice contact. However, care must be taken to avoid cross-contamination on the ice between the various types of fish and product. This method is well suited to most wet fish, but is less suited to smoked fish which can become washed-out by melt water if covered in ice and to live shellfish which can be harmed by direct ice contact, and is not suitable for cooked fish, including hot smoked fish, and any other fish which may be eaten without further cooking.

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- b) use for wrapping or containing any open food any paper or other wrapping material or container which is not clean or which is liable to contaminate the food, and shall not allow any printed material, other than printed material designed for wrapping or containing food, to come into contact with any food other than uncooked vegetables or unskinned rabbits or hares or unplucked game or poultry.

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The use of trays and tubs allows the monger to prepare sections of the display in the preparation and processing area, store them in chill and bring them out for display when required. Small fish and shellfish can be easier to serve from a tray or tub than directly from a bed of ice. Trays and tubs ensure different fish and products are segregated and reduce the dangers of cross-contamination.

Trays are suited to large fish, and tubs to small shellfish. Trays or tubs for wet fish or live shellfish must have drainholes. Trays or tubs for smoked or cooked fish should not have drainholes.

#### **7.1.2.9.2 Setting up and replenishing an iced slab**

It is recommended that at the beginning of the day a bed of ice at least 10cm thick is laid on the slab. Fish or trays can then be laid directly on the ice.

It is recommended that whole fish are laid out on the ice or on clean trays in neat rows in a single layer. Small fish such as sprats or sardines should be laid out in a shallow layer up to 6cm deep. Gutted fish should be laid belly down to assist drainage. It is recommended that fillets are laid out neatly skin side down (if unskinned) in a shallow layer up to 5cm deep. Steaks should be laid in a single layer to avoid blood staining.

Wet fish should then be sprinkled liberally with ice on top, and re-icing should be continued throughout the day to ensure the fish remain chilled and moist.

Smoked fish and live shellfish can, with care, be laid directly on the ice or on a sheet of wet-strength paper or polythene laid on the ice, but should not be iced on top. Cooked fish should be laid on trays and should not be iced on top.

Pink fleshed salmon or trout fillets or steaks should not come into direct contact with ice as their water soluble colour can be washed out. They should be laid on a tray or sheet and handled as for smoked or cooked fish.

Fish should not be laid out in layers deeper than those recommended, particularly fish which cannot be top-iced, as chilling will not then be effective.

It is recommended that small shellfish and live molluscs are placed in tubs set into the ice and the ice built around the sides of the tubs.

When the display stock of a particular type of fish or product is running low and requires replenishment the remaining stock should be removed and fresh stock laid out, and the old stock replaced on top to continue stock rotation. This is simplified if trays are used as a fresh tray already loaded with replacement stock has simply to be exchanged with the original. To avoid contamination the original tray must be replaced by a clean tray. If the fish is laid on a sheet on the ice then the sheet must be replaced.

A full display will be required for periods of peak trading, but provided a full range is on display the monger should allow display stocks to run down towards the end of the day if replacement stock is likely to remain unsold.

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**7.1.2.9.3. SI 1970 No. 1172**

**The Food Hygiene (General) Regulations 1970**

**Part III**

*Food to be protected from risk of contamination*

9. A person who engages in the handling of food shall, while so engaged, take all such steps as may be reasonably necessary to protect the food from the risk of contamination, and in particular (without prejudice to the generality of the foregoing)–

- a) shall not so place the food as to involve any risk of contamination;
- b) shall, before offering any food for sale, ensure that any food which is unfit for human consumption is kept apart from any other food;
- c) shall not in or about any forecourt, yard, market or stall, place any food lower than eighteen inches from the ground unless it is adequately protected from risk of contamination;
- d) shall ensure that open food is kept covered where reasonably necessary with a clean cover while exposed for sale and during sale or delivery is kept covered or is otherwise effectively screened from possible sources of contamination;
- e) shall not keep in any food room any animal feed unless it is in a container of such material and so closed as to prevent the risk of contaminating the food in the room;

Provided that paragraph (b) shall not apply where food is intended to be sold by wholesale either by sample or description.

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#### **7.1.2.9.3 The layout**

It is essential that the different species and product types of wet fish, smoked fish, cooked fish and the various types of shellfish are placed in separate areas of the display to avoid any danger of cross-contamination and to enable clear labelling.

Wet fish and live shellfish must be placed where they can be removed without dripping onto other products, particularly products which may be eaten without further cooking. Wet fish and live shellfish can be laid out along the side of the display from which the monger serves, but often this side is at the top of the display drainage slope. To avoid cross-contamination from drainage down the slope, especially when the fish are not in trays or tubs, it is preferable to divide the length of the display running across the slope into sections, each separate section running from the top to the bottom of the drainage slope, and to segregate the various types of fish and product in these sections.

#### **7.1.2.9.4 Decorative material**

If decorative material is used to add colour to the display it must be placed between the separate products and not on the fish. Plastic materials must be kept scrupulously clean and fresh produce must be washed before putting on display and not re-used.

#### **7.1.2.9.5 Operation of refrigerated display**

It is recommended that fish are not placed directly onto a refrigerated surface that chills by direct contact as in practice this can result in slowly freezing the fish if the thermostat is set to give a fish temperature close to 0°C. If such equipment is used a bed of ice should be laid on the slab and the thermostat set so that the ice does not freeze and prevent drainage, and the display should be set up as for an iced slab.

Even in a cabinet which chills by cold air circulation it is recommended that fish are laid on a bed of ice, and wet fish sprinkled with ice on top, to maintain moist conditions and a temperature close to 0°C.

Cabinets must not be filled above their load lines as the top fish will not be properly chilled. Care must be taken to ensure that cold air circulation is not restricted by labels and decorative material, etc.

Thermostats in cold air circulation cabinets must be set to give the optimum air temperature around the fish, and evaporator units must be defrosted as described in Section 7.1.2.4.4 *Operation of chill store*. Some of these cabinets, particularly the open type with tiered shelves, are prone to wide temperature variations within the cabinet (especially when draughts are present), and the retailer should not use this equipment for fish if the recommended temperature ranges cannot be maintained.

#### **7.1.2.10 FROZEN DISPLAY**

***If frozen fish is sold it must be displayed in a purpose-built refrigerated display cabinet.***



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#### **7.1.2.11.1 Food Act 1984**

##### **Part I**

##### *Composition and labelling of food*

6.-(1) A person who gives with any food sold by him, or displays with any food exposed by him for sale, a label, whether or not attached to or printed on the wrapper or container, which –

- a) falsely describes the food, or
  - b) is calculated to mislead as to its nature, or its substance or its quality,
- is guilty of an offence, unless he proves that he did not know, and could not with reasonable diligence have ascertained, that the label was of such character as mentioned above.

##### **SI 1984 No. 1305**

##### **The Food Labelling Regulations 1984**

##### **Part II**

##### *Prohibition of misleading presentation*

4. The presentation of food shall not be such that a purchaser is likely to be misled to a material degree as to the nature, substance or quality of the food.

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***Thermostats must be set to give the desired air temperature of -18°C or lower around the fish.***

Cabinets must not be filled above the load lines as the top fish will not be properly protected from temperature rise, and care must be taken to ensure that air circulation is not restricted in cabinets which depend on cold air circulation.

Thermostats must be adjusted and cabinets defrosted as described in Section 7.1.2.4.4 *Operation of chill store*. However, the air temperature around the fish should be -18°C or less and manual defrosting of the lining of cabinets will be required when ice accumulation becomes excessive.

#### **7.1.2.11 SALES PRACTICES**

***To attract customers the retail area must have interesting and pleasant decor, be well lit, and must be kept clean, tidy and in good order.***

***The monger offering a pleasant, helpful and professional service will sell more fish.***

***All fish and products displayed must be clearly labelled with permitted names and have prices marked.***

***In the sales area the danger of contamination of the fish and of cross-contamination between the various types of fish and product are high, and particular care must be taken.***

***Unless preparation and processing are a deliberate feature of the sales area it is recommended that only minor processing operations required by the customer, such as trimming and portioning, are carried out in the sales area.***

The art of salesmanship cannot be taught in these Guidelines but should be developed by the retailer. The use of promotional material, including recipe leaflets is recommended. The monger should recommend alternative species and products and be able to assist customers who are unfamiliar with the characteristics and preparation of them.

##### **7.1.2.11.1 Labelling**

Each type of unpacked fish and product on display must be clearly and individually labelled with a permitted name and an indication of any previous processing or additives used. Permitted names are specified by law and are given in Appendix III *Fish classification, names, characteristics and products*. Fish which have been previously frozen, and fish which have been dyed, or polyphosphated must be labelled as such.

Fish prepackaged for retail sale, other than that packaged by the retailer on the premises, must be marked on the packs, or on labels attached to the packs, with a wide range of information specified in the legislation. Each type of fish packaged by the retailer must be individually labelled with a permitted name and an indication of any previous processing or additives used.

### Part III

#### *General labelling requirement*

6. Subject to the following provisions of this Part of these regulations, all food which this Part of these regulations applies shall be marked or labelled with –

- a) the name of the food;
- b) a list of ingredients;
- c) an indication of minimum durability;
- d) any special storage conditions or conditions of use;
- e) the name or business and an address or registered office of the manufacturer or packer, or of a seller established within the European Economic Community;
- f) particulars of the place of origin of the food if failure to give such particulars might mislead a purchaser to a material degree as to the true origin of the food; and
- g) instructions for use if it would be difficult to make appropriate use of the food in the absence of such instructions.

#### *Name prescribed by law*

7.-(1) If there is a name prescribed by law for a food, that is to say if a particular name is required to be used for the food, that name shall be used as the name of the food.

#### *Indication of physical condition or treatment*

12.-(1) Where a purchaser could be misled by the omission of an indication –

- a) that a food is powdered or is in any other physical condition, or
- b) that a food has been dried, freeze-dried, frozen, concentrated or smoked, or has been subjected to any other treatment,

the name of the food shall include or be accompanied by such an indication.

(2) Without prejudice to the generality of paragraph (1) of this regulation, the name used for a food specified in Schedule 2 shall include or be accompanied by such indication as is required by that schedule.

#### *Foods which need not bear an indication of minimum durability*

22. The following foods need not be marked or labelled with an indication of minimum durability:–

- j) deep-frozen (including quick-frozen) food;
- m) any food with a minimum durability of more than eighteen months.

#### *Food which is not prepacked and similar food*

24.-(1) This regulation applies to –

- a) food which is not prepacked,
- b) food which is prepacked for direct sale, and
- c) flour confectionery which is packed either in a crimp case only or in wholly transparent packaging which is either unmarked or marked only with an indication of the price of the food, if there is not attached to the flour confectionery or its packaging any document, notice, label, ring or collar (other than a label on which only the price of the food is marked),

but does not apply to any such food to which regulation 28 or 29 applies.

(2) Food to which this regulation applies need not to be marked or labelled with any of the particulars specified in regulation 6, except that any such food, other than –

- a) food which is not exposed for sale,
- b) white bread,
- c) flour confectionery, and
- d) carcasses and parts of carcasses which are not intended for sale in one piece,

shall be marked or labelled with the name of the food.

(3) In this regulation and in regulation 29 "prepacked for direct sale" means –

- a) in relation to any food other than edible ices, flour confectionery and bread, prepacked by a retailer for sale by him on the premises where the food is packed or from a vehicle or stall used by him, and
- b) in relation to edible ices, flour confectionery or bread, prepacked by a retailer for sale as aforesaid or prepacked for sale on premises where business is conducted by the producer of the food under the same name as the business conducted on the premises where the food is produced.

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The unit price of each type of fish and product sold must be clearly displayed. Prices should preferably be marked on the individual descriptive labels by each type of fish or product (or on each pack if the fish is packaged), or can be on a prominently displayed board.

The use of an unapproved name, or misleading labelling or pricing, or lack of labelling or pricing is illegal.

To avoid contamination, labels or price tickets should not be placed in direct contact with the fish. They should be clipped to the tray or tub or stuck in the ice or stood adjacent to the fish. They must be kept clean.

#### *Indication of additives*

26.-(1) Subject to the following paragraphs of this regulation, any food which –

- a) by virtue of regulation 24 or 25 alone is not marked or labelled with a list of ingredients, and
  - b) contains any additive which –
    - i) but for regulations 24 and 25, would be required to be named in the list of ingredients of the food, and
    - ii) was added to or used in the food or an ingredient of the food to serve the function of an antioxidant, artificial sweetener, colour, flavour enhancer, flavouring or preservative
- shall be marked or labelled with an indication of every such category of additives that is contained in the food.

#### *General requirement*

32.-(1) When any food other than food to which regulation 24, 25, 28 or 29 applies is sold to the ultimate consumer, the particulars with which it is required to be marked or labelled by these regulations shall appear –

- a) on the packaging, or
- b) on a label attached to the packaging, or
- c) on a label that is clearly visible through the packaging.

#### *Food to which regulation 24, 25, 28 or 29 applies*

33.-(1) When any food to which regulation 24, 25, 28 or 29 applies is sold to the ultimate consumer, the particulars with which it is required to be marked or labelled by these regulations shall appear –

- a) on a label attached to the food, or
- b) on a ticket or notice displayed in immediate proximity to the food.

#### *Intelligibility*

34.-(1) The particulars with which food is required to be marked or labelled by these regulations, or which appear on a notice pursuant to these regulations, shall be easy to understand, clearly legible and indelible and, when a food is sold to the ultimate consumer, the said particulars shall be marked in a conspicuous place in such a way as to be easily visible.

### **SI 1974 No. 1368**

### **The Price Marking (Meat and Fish) Order 1974**

#### **Schedule**

6. An indication of the unit price, if it is not marked on the goods or on the container, shall be easily recognisable by an intending purchaser under normal conditions of purchase as referring to the goods in question; but the indication need not be adjacent to the goods and may be grouped with other indications of the unit prices of other goods to which this Order applies in the form of a list or otherwise.

7. Where the indication of the unit price is not adjacent to the goods to which it refers it shall be in such a position that it is readily discernible by an intending purchaser from the place where he would under normal conditions of purchase select the goods, or, if he would not select the goods himself, where he would, under those conditions, ask for the goods. If there is more than one such indication in relation to any goods it shall be sufficient if one such indication complies with this paragraph.

8. If the indications of the selling price (whether required by this Order or not) and the unit price are both marked on the container they shall be in close proximity to one another but sufficiently distinct as not to confuse an intending purchaser under such conditions.

9. Any indication shall be clear and legible, and easily read by an intending purchaser under such conditions.

10. Where the indication of a unit price has been calculated by reference to the gross weight of the goods, that fact shall be clearly indicated.



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**7.1.2.11.2 SI 1970 No. 1172**  
**The Food Hygiene (General) Regulations 1970**

Part II

*Cleanliness of articles or equipment*

7.-(1) Articles or equipment with which food comes into contact, or is liable to come into contact, in the course of a food business shall be kept clean, and with the exception of non-returnable containers, shall be so constructed, be of such materials and be kept in such good order, repair and condition as to—

- a) enable them to be thoroughly cleaned;
- b) prevent so far as is reasonably practicable, any matter being absorbed by them; and
- c) prevent so far as is reasonably practicable, any risk of contamination of the food.

*Food to be protected from risk of contamination*

9. A person who engages in the handling of food shall, while so engaged, take all such steps as may be reasonably necessary to protect the food from risk of contamination, and in particular (without prejudice to the generality of the foregoing) —

- a) shall not so place the food as to involve any risk of contamination;
- b) shall, before offering any food for sale, ensure that any food which is unfit for human consumption is kept apart from any other food;
- c) shall not in or about any forecourt or yard, place any food lower than eighteen inches from the ground unless it is adequately protected from risk of contamination;
- d) shall ensure where reasonably necessary that open food while exposed for sale or during sale or delivery is kept covered or is otherwise effectively screened from possible sources of contamination;
- e) shall not keep in any food room any animal feed unless it is in a container of such material and so closed as to prevent the risk of contaminating the food in the room;

Provided that paragraph (b) shall not apply where food is intended to be sold by wholesale either by sample or description.

**7.1.2.11.3 Weights and Measures Act 1985**

Part II

*Weighing or measuring equipment for use for trade*

11.-(1) The provisions of this section shall apply to the use for trade of weighing or measuring equipment of such classes or descriptions as may be prescribed.

(2) No person shall use any article for trade as equipment to which this section applies or have any article in his possession for such use, unless that article, or equipment to which this section applies in which that article is incorporated or to the operation of which the use of that article is incidental, —

- a) has been passed by an inspector as fit for such use, and
- b) except as otherwise expressly provided by or under this Act, bears a stamp indicating that it has been so passed which remains undefaced otherwise than by reason of fair wear and tear.

17.-(1) If any person uses for trade, or has in his possession for use for trade, any weighing or measuring equipment which is false or unjust, he shall be guilty of an offence and the equipment shall be liable to be forfeited.

Part IV

*General Offences*

28.-(1) Subject to Sections 33 to 37 below, any person who, in selling or purporting to sell any goods by weight or other measurement or by number, delivers or causes to be delivered to the buyer —

- a) a lesser quantity than that purported to be sold, or
  - b) a lesser quantity than corresponds with the price charged,
- shall be guilty of an offence.

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#### **7.1.2.11.2 Fish handling**

The recommendations given in Section 7.1.2.7 *Basic fish preparation and processing* must be followed in the sales area. It is particularly important that the sales area is kept clean and tidy to avoid cross-contamination between the various types of fish and product which may be handled in rapid succession.

The fish handling area must be frequently washed down and all utensils must be kept clean and should be hygienically stored in racks. It is recommended that wet fish is removed from the display using a sheet of wrapping paper, and that separate colour coded tongs and scoops are used for smoked products, cooked products and the various types of shellfish.

#### **7.1.2.11.3 Weighing**

It is illegal to sell short weight, and in the retailer's own interest not to give fish away. At the start of every day it is recommended that the level of the scales is checked and their accuracy tested with a check weight.

To avoid cross-contamination the scale pan must be kept clean and it is recommended that all fish and products are weighed on a fresh sheet of wrapping paper.

The customer's view of the weighing operation must not be obstructed.



*Miscellaneous and supplementary*

45.-(1) For the purposes of this Part of the Act, without prejudice to any other method of making known to a person the quantity of any goods expressed in a particular manner, that quantity shall be taken to be made known to that person –

- a) if the goods are weighed or otherwise measured or counted, as the case may require, in the presence of that person,
- b) if the goods are made up in or on a container marked with a statement in writing of the quantity of the goods expressed in the manner in question and the container is readily available for inspection by that person, or
- c) upon such a statement in writing being delivered to that person.

46. For the purposes of this Part of this Act, a person shall not be taken to weigh or otherwise measure or count any goods in the presence of any other person unless he causes any equipment used for the purpose to be so placed, and so conducts the operation of weighing or otherwise measuring or counting the goods, as to permit that other person a clear and unobstructed view of the equipment, and of the operation, and of any indication of quantity given by any such equipment as the result of that operation.

**7.1.2.11.4 SI 1970 No. 1172**

**The Food Hygiene (General) Regulations 1970**

Part III

*Carriage and wrapping of food*

12. A person who engages in the handling of food shall not while so engaged –

- b) Use for wrapping or containing any open food any paper or other wrapping material or container which is not clean or which is liable to contaminate the food, and shall not allow any printed material, other than printed material designed exclusively for wrapping or containing food, to come into contact with any food other than uncooked vegetables or unskinned rabbits or hares or unplucked game or poultry.

**SI 1978 No. 1927**

**The Materials and Articles in Contact with Food Regulations 1978**

*Sale and use of materials and articles*

4.-(1) This regulation shall apply to materials and articles which are in their finished state and are intended to come into contact with food or which are in contact with food and are intended for that purpose.

(2) Materials and articles to which this regulation applies shall be manufactured in accordance with good manufacturing practice, that is to say in such a way that under normal or foreseeable conditions of use they do not transfer their constituents to foods with which they are, or are likely to be, in contact in quantities which could –

- i) endanger human health
- ii) bring about the deterioration in the organoleptic characteristics of such food or an unacceptable change in its nature, substance or quality.

(3) No person shall –

- a) sell,
- b) import, or
- c) use in the course of a business in connection with the storage, preparation, packing, selling or serving of food,

any such material or article which does not comply with this regulation.

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#### **7.1.2.11.4 Wrapping**

It is recommended that all chilled fish and products are wrapped in wet-strength paper or polythene film and then overwrapped and sealed in polythene bags.

Polythene bags are inexpensive, readily available in a variety of sizes, and are easily fastened to prevent leakage of drip or fishy odours. The latter is of particular importance to the convenience and satisfaction of the customer.

Newsprint must not be used, even for overwrapping, because of the possibility of contamination.

#### **7.1.2.11.5 Cash handling**

The customer's cash is potentially a serious source of contamination to the hands of the monger. Handling of both cash and fish should be avoided if possible.

If more than one person is serving it is recommended that one person handles cash and not fish. This is simplified if electronic price calculating and label printing scales are used, as each wrapped purchase can be price labelled and handed to the cash handler.

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**7.1.2.12 SI 1970 No. 1172**  
**The Food and Hygiene (General) Regulations 1970**

**Part IV**

*Accumulation of refuse, etc.*

26.-(1) The layout of food premises shall be such as to provide adequate space, suitably sited, for the purpose of the removal of waste from food and the storage of any such waste and unfit food prior to disposal.

(2) No refuse or filth, whether solid or liquid, shall be deposited or allowed to accumulate in a food room except so far as may be unavoidable for the proper carrying on of the trade or business.

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#### **7.1.2.12 WASTE DISPOSAL**

***Waste must not be allowed to accumulate within the premises.***

***Waste must be held in lidded containers in the waste storage area.***

***Waste must be disposed of from the storage area on a regular and reliable basis. It is recommended that waste is disposed of daily.***

Accumulations of waste attract vermin and after a short period of time, especially in hot weather, give off offensive odours.

The retailer must make an arrangement with the local authority or a private contractor for the collection of waste, or must take the waste to a public disposal facility.

Containers for waste must not be overfilled and the lids must be kept on. Containers must be cleaned after use and the waste storage area must be kept clean and tidy.

#### **7.1.2.13 CLOSE OF TRADING**

***Remaining stocks of chilled fish must be inspected and any fish of poor quality or that will be of poor quality by the next trading session must be disposed of.***

***Chilled fish on display must be returned to chill storage.***

***The premises and equipment must then be cleaned down.***

Chilled fish must be stored in accordance with the recommendations given in Section 7.1.2.4 *Chill storage*.

Recommendations for cleaning are given in Section 8 *Recommendations for cleaning and hygiene*.



# 7 Recommendations for practices

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## 7.2 Recommendations for mobile shops and market stalls

### 7.2.1 The basic procedures necessary for quality assurance

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- 7.2.1.2 Temperature monitoring and control
  - 7.2.1.2.1 Schedule for temperature monitoring and control
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  - 7.2.2.11.5 Cash handling
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#### **7.2.1.1 Food Act 1984**

##### **Part I**

##### *Composition and labelling of food*

2.-(1) If a person sells to the purchaser's prejudice any food which is not-

- a) of the nature, or
- b) of the substance, or
- c) of the quality,

of the food demanded by the purchaser, he is guilty of an offence, subject to section 3.

##### *Food unfit for human consumption*

8.-(1) A person who -

- a) sells or offers or exposes for sale, or has in his possession for the purpose of sale or of preparation for sale, or
  - b) deposits with, or consigns to, any person for the purpose of sale,
- any food intended for, but unfit for human consumption is guilty of an offence.

(2) Where food of which an offence under paragraph (a) of subsection (1) has been committed was sold to the offender by some other person that person is also guilty of an offence.

## 7.2 Recommendations for mobile shops and market stalls

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### 7.2.1 The basic procedures necessary for quality assurance

***To consistently achieve the desired quality standards the retailer must establish systematic procedures for fish purchase, stock rotation, temperature monitoring and control, the avoidance of contamination, fish inspection, cleaning and hygiene, and equipment maintenance.***

Systematic procedures are necessary to ensure consistent achievement. The retailer must establish a routine of methodically applied schedules of actions automatically carried out as part of the business. The preparation of written schedules is valuable for new entrants to the trade.

The retailer will need to keep records of purchases, sales and other financial matters. It is recommended that the retailer also keeps records of important technical matters such as equipment maintenance schedules and periodic temperature measurements. The keeping of records should ensure that important periodic actions are not overlooked, should ensure that problems do not develop unnoticed, and should assist the retailer in making management decisions regarding the operation of the business.

Recommended procedures for fish purchase and for cleaning and hygiene are given in Section 5 *Recommendations for purchasing fish* and Section 8 *Recommendations for cleaning and hygiene*.

#### 7.2.1.1 STOCK ROTATION

***To minimise quality loss the retailer must aim for as quick a stock turn-over as possible and to reduce to the minimum the quantity of chilled fish held over from one day to the next.***

***It is recommended that the retailer records the daily sales of each type of fish and product throughout the year as a guide to future ordering. The door-to-door trader must establish the individual requirements of the customers on the round.***

***It is recommended that all batches of fish purchased are identified with a date code to assist in stock rotation.***

***Batches of fish must be kept separate so that fish of different quality do not become mixed.***

***The retailer must systematically monitor the quantity and the condition of fish held in stock in order to plan the day to day operation of the business.***

***A flexible approach to selling is required in order to sell fish approaching the minimum freshness standard before it becomes unacceptable.***

***Fish that has deteriorated to a poor freshness quality must not be sold.***





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Labelling batches with the date of packing, freezing or reception assists in stock rotation but does not necessarily indicate the freshness or the available storage life of the fish as these vary with the type of fish and product and with its condition when packed, frozen or received. Labelling must be backed up by the assessment of freshness of samples of the fish.

The procedures required for the various types of mobile and market stall trader differ. Stock rotation is carried out automatically by a door-to-door trader carrying repeat orders direct from supplier to customer. There is little requirement and it would be difficult for that trader to label and keep separate all batches of fish in combined deep-trunk storage and display. But a market trader with separate storage and display facilities and possibly storing fish at base must give full attention to stock rotation procedures.

Recommendations for promoting the sale of fish approaching the minimum freshness standard and for disposing of poor quality fish are given in Section 4 *Recommendations for quality standards*.

#### **7.2.1.2 TEMPERATURE MONITORING AND CONTROL**

***Temperature is the most important factor affecting the rate of fish spoilage, and fish temperature is often found to be too high.***

***The retailer must systematically monitor fish and equipment temperatures to ensure that fish are maintained within the correct temperature ranges.***

***All chilled fish should be maintained at a temperature as close to 0°C as possible within the range 0°C to +4°C. Live shellfish are best maintained within the range +2°C to +8°C. Frozen fish should be maintained at a temperature of -18°C or lower.***

***If fish or equipment temperatures are incorrect then the causes must be determined and corrective action taken immediately.***

***All fish must be held in chill or frozen storage or display at all times except when being deliberately thawed or briefly when being prepared or processed.***

***Icing is the best means of chilling fish. It is recommended that storage and display facilities on vehicles and stalls depend entirely upon the use of ice to chill the fish. The retailer must systematically monitor icing levels and re-ice the fish when necessary to ensure that ice is always present.***

***Refrigeration is not recommended in most circumstances for vehicles and stalls because of the problems of obtaining continuous power supply and of reliability in arduous conditions, and of the possibility of freezing chilled fish. Refrigerated storage can be readily provided at base. For general purpose refrigerated chill stores it is recommended that thermostats are set to give an air temperature of +2°C around the fish.***

Common causes of high fish temperatures include hot weather, using the wrong type of equipment, faulty refrigeration plant, leaving chill store doors open, the exposure of fish on display to warm draughts and radiant heating from direct sunlight and lights and heaters, and ***inadequate icing***. Faulty refrigeration plant can also result in low temperatures and slow freezing which is harmful to fish quality.



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Quantities of ice used and thermostat settings may have to be seasonally adjusted. Faulty equipment must be repaired immediately. Lights and heaters may have to be moved or removed and the display itself may have to be moved or otherwise protected.

Air temperatures within refrigerated stores will not necessarily correspond with the values at which thermostats are set or the readings of temperature dials. It is important that air temperatures are measured and thermostats adjusted to achieve the correct air temperature.

The obvious physical presence of ice surrounding the fish is a clear indication that the fish is being maintained in a chilled environment.

Fish must not be left lying around in ambient conditions as it will rapidly rise in temperature.

#### **7.2.1.2.1 Schedule for temperature monitoring and control**

It is recommended that a daily schedule is established, but schedules for the various types of trader will differ.

Sample fish temperatures should be measured when supplies of fish are collected or delivered. Whenever possible throughout the day the temperature dials on refrigerated storage facilities should be checked for deviations from their normal values. At least once per week, and whenever thermostats are adjusted, sample fish and air temperatures should be measured in storage and display facilities. It is especially important to measure the temperatures of smoked fish, cooked fish and live shellfish which are not covered in ice.

Icing levels must be checked and re-icing carried out if necessary when supplies of fish are collected or delivered. At the start and finish of every working day the icing of fish in chill storage must be checked. Throughout each trading day fish on open display must be re-iced as necessary.

#### **7.2.1.2.2 Periodic temperature surveys**

Seafish surveys have shown that fish and equipment temperatures are often far too high with retailers unaware of this and of the consequences for their business.

It is recommended that the retailer periodically carries out a full temperature survey of the entire retailing operation.

The survey should be carried out at least every six months, in mid-summer and mid-winter, and whenever major alterations are made to the vehicle, stall or base.

Sample fish temperatures should be measured throughout the cycle of operation from collection or delivery of fish supplies through to retail display. At the same time the ambient air temperatures in vehicle, stall and base should be measured. Fish and air temperatures should be measured throughout the storage and display facilities, paying particular attention to the variation in temperature throughout these facilities and to the correspondence with readings on any temperature dials. The temperature of hot and cold water supplies should be monitored throughout the day.

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**7.2.1.3 SI 1966 No. 791**  
**The Food Hygiene (Markets, Stalls and Delivery Vehicles) Regulations 1966**

**Part II**

*Food business not to be carried on from insanitary stalls or delivery vehicles*

4. No food business shall be carried on at or from any stall which is insanitary or which is so situated or constructed, or is in such a condition, that the food is exposed to the risk of contamination; and in the course of a food business no delivery vehicle shall be used which is insanitary or which is so constructed, or is in such a condition, that the food is exposed to the risk of contamination.

*Cleanliness of equipment, etc.*

6.-(1) Articles of equipment with which food comes into contact, or is liable to come into contact, in the course of a food business shall be kept clean and shall be so constructed, be of such materials and be kept in such good order, repair and condition as to –

- a) enable them to be thoroughly cleaned, and
- b) prevent, so far as is reasonably practical, any matter being absorbed by them and any risk of contamination of the food.

**Part III**

*Food to be protected from risk of contamination*

7. A person who engages in the handling of food shall, while so engaged, take all such steps as may be reasonably necessary to protect the food from the risk of contamination, and in particular (without prejudice to the generality of the foregoing)–

- a) shall not so place the food as to involve any risk of contamination;
- b) shall, before offering any food for sale, ensure that –
  - i) any part of that food which is unfit for human consumption is removed, and
  - ii) any food which is unfit for human consumption, unsound or unwholesome is kept apart from any other food;
- c) shall not, in or about any forecourt, yard, market or stall, place any food lower than eighteen inches from the ground unless it is adequately protected from risk of contamination, and
- d) shall ensure that open food is kept covered where reasonably necessary with a clean cover while exposed for sale and during sale or delivery.

Provided that paragraph (b) of this regulation shall not apply where food is intended to be sold by wholesale either by sample or description.

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To enable comparisons between surveys the procedure adopted should be standardised and the results recorded on a log sheet. Details of the measurements necessary will differ for each type of trader, but example procedures and log sheets are given in Appendix V *Temperature surveys*.

### **7.2.1.3 THE AVOIDANCE OF CONTAMINATION**

***Great care must be taken to protect the fish from external sources of contamination such as dust and dirt, vermin, and the public, also from cross-contamination between the various types of fish and product, and from waste, and from contamination by staff handling the fish.***

***Particular care must be taken to protect cooked fish, including hot smoked fish, or any other fish which may be eaten without the further cooking necessary to make it safe once contaminated.***

***Poultry, game and other meat products must be kept separate from fish and handled using separate equipment and utensils.***

***Because of the limited facilities for cleaning and hygiene it is strongly recommended that fish preparation and processing on vehicles and stalls is restricted to portioning and trimming as required by the customer.***

***Vehicles, stalls and base facilities must be kept free of vermin, clean, and in a good state of repair. Animals must not be allowed on any of the facilities.***

***Vehicles, stalls and equipment must be protected from contamination when in transit and when not in use.***

To reduce the risk of contamination from outside sources, doors, lids, windows, etc. must be closed when not actually being used for access and particularly when a vehicle is in transit or is parked and not in use. Fish must not be left lying around (it should be in chill or frozen storage). Unless on display, or briefly whilst being prepared or processed at base, fish should be covered or in an enclosed storage area. Ice, wrapping and any other materials coming into contact with fish must be kept covered or in an enclosed storage area. Equipment and utensils coming into contact with fish must be hygienically stored.

To avoid cross-contamination the various types of fish and product must be kept separate and such that no drip or melt water passes from one type to another. Wet fish, smoked fish, cooked fish and each type of shellfish, must be kept separate. It is further recommended that the cartilaginous species of wet fish, such as dogfish and skate, are kept separate from other wet fish to prevent contamination by slime and the smell of ammonia. Waste must not be allowed to accumulate on vehicles, stalls or within base facilities. Drains must be kept clear and storage tanks or containers on vehicles and stalls must be regularly emptied.

Recommendations regarding cleaning and hygiene, including personal hygiene and the exclusion of vermin and animals are given in Section 8 *Recommendations for cleaning and hygiene*.

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#### **7.2.1.4 Food Act 1984**

##### **Part I**

###### *Composition and labelling of food*

2.-(1) If a person sells to the purchaser's prejudice any food which is not-

- a) of the nature, or
- b) of the substance, or
- c) of the quality,

of the food demanded by the purchaser, he is guilty of an offence, subject to section 3.

###### *Food unfit for human consumption*

8.-(1) A person who-

- a) sells or offers or exposes for sale, or has in his possession for the purpose of sale or of preparation for sale, or
  - b) deposits with, or consigns to, any person for the purpose of sale,
- any food intended for, but unfit for human consumption is guilty of an offence.  
(2) Where food of which an offence under paragraph (a) of subsection (1) has been committed was sold to the offender by some other person that person is also guilty of an offence.

#### **SI 1966 No. 791**

#### **The Food Hygiene (Markets, Stalls and Delivery Vehicles) Regulations 1966**

##### **Part III**

###### *Food to be protected from risk of contamination*

7. A person who engages in the handling of food shall, while so engaged, take all such steps as may be reasonably necessary to protect the food from the risk of contamination, and in particular (without prejudice to the generality of the foregoing)-

- b) shall, before offering any food for sale, ensure that -
  - i) any part of that food which is unfit for human consumption is removed,
  - and
  - ii) any food which is unfit for human consumption, unsound or unwholesome is kept apart from any other food;

Provided that paragraph (b) of this regulation shall not apply where food is intended to be sold by wholesale either by sample or description.

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#### **7.2.1.4 FISH INSPECTION**

***The retailer must systematically inspect purchases and stocks of fish to ensure that fish is supplied to the correct specification and thereafter remains undamaged, uncontaminated and of satisfactory quality.***

***The retailer or any staff carrying out inspection must be familiar with freshness assessment. Actions to be taken must be clearly understood.***

***Fish found to be held outside of the required temperature range or in damaged packages must be inspected with particular care.***

***Fish found to be contaminated or of poor quality must be kept separate and must not be sold.***

Fish quality standards are specified in Section 4 *Recommendations for fish quality standards* and a simple freshness assessment system for use by retailers is given in Appendix II *The assessment of freshness*.

A visual check will confirm that packs are undamaged and that the fish are free from blemishes, worms, etc. Smelling the fish will give a good indication of freshness and also alert the retailer to the presence of taints, etc.

##### **7.2.1.4.1 Schedule for the inspection of chilled fish**

It is recommended that a daily schedule is established.

Each batch of fish purchased must be inspected. At the start of every working day each batch of fish held over in separate chill storage must be inspected. During the day any fish being prepared or processed at base must be inspected by the staff involved. Each batch of fish brought out for separate display must be inspected. At the end of the day each batch of fish to be held over in separate chill storage must be inspected. Traders with deep-trunk combined storage and display must inspect each batch of fish being loaded into the facility to ensure that it will withstand their cycle of operation and they must take care when selling the fish to confirm that the quality has remained satisfactory.

##### **7.2.1.4.2 Periodic inspection of frozen stock**

Each batch of fish purchased must be inspected.

It is recommended that all frozen stocks in storage are inspected at weekly intervals.

Fish beyond its storage life that is of poor quality must not be sold.





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If packs are damaged or there are signs of dehydration then samples should be thawed for further assessment. Thawed fish must not be re-frozen. Any frozen fish in damaged packs that remains acceptable and that is not required immediately must be re-packed.

#### **7.2.1.5 EQUIPMENT MAINTENANCE**

***All equipment should be checked and maintained according to a schedule to ensure correct operation and to identify faults before they cause a breakdown.***

***The schedule should include the day to day checks and simple maintenance to be carried out by the retailer and longer term specialist maintenance to be carried out by experts.***

***It is recommended that important items of equipment including vehicles, weigh scales and any refrigeration plant are covered by contracts with the suppliers or with specialist maintenance engineers to provide regular inspection and a priority breakdown service.***

Complex items of equipment such as vehicles, weigh scales and any refrigeration plant play a vital role in the retailer's business. They should be operated in accordance with the maker's instructions and maintained by experts. The maker's instructions should form the basis of a maintenance schedule.

It is recommended that traders operating vehicles join a motoring organisation giving a breakdown service.

It is recommended that the retailer files records for each important item of equipment. The file should contain the technical details supplied with the equipment and all maintenance records. This can simplify fault finding and replacement part purchase when problems occur, and should warn the retailer when the costs of maintenance and breakdown are becoming excessive and the equipment should be replaced.

Simple daily checks to be carried out by the retailer include checking vehicle engine oil, cooling water and tyres, etc. Daily checks include the reading of temperature dials on any refrigerated equipment and the listening for unusual noises from refrigeration plant. The refrigeration engineer should be consulted if problems are suspected. Periodically refrigeration evaporator units and frozen fish storage facilities must be defrosted. The accuracy of weigh scales must be checked daily.

If refrigeration thermostats are readily accessible the retailer can, with care, adjust them if necessary. If there is any doubt about their operation a refrigeration engineer should be called in to make the necessary adjustments.

Cleanliness and tidiness are an aid to maintenance. It is particularly important that the heatflow from refrigeration plant is not restricted by layers of dirt or by stored materials and equipment as the efficiency of operation will be seriously impaired.

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### 7.2.2.1 Food Act 1984

#### Part 1

##### *Hygiene*

15. A local authority may make byelaws for securing the observance of sanitary and cleanly conditions and practices—

- a) in connection with the handling, wrapping and delivery of food sold or intended for sale for human consumption; and
- b) in connection with the sale or exposure for sale in the open air of food intended for human consumption.

##### *Registration of premises and licensing of vehicles*

20.-(1) The Ministers may make regulations providing—

- a) for the use by local authorities of licences in respect of the use of vehicles, stalls or places other than premises, for the preparation, exposure or offer for sale, or sale, of food for human consumption; and
- b) for prohibiting the use for any such purpose of any such vehicle, stall or place except in accordance with a licence issued under the regulations.

#### Part III

##### *Markets*

52. A market authority may appoint the days on which, and the hours during which, markets are to be held.

53.-(1) A market authority may demand in respect of the market, and in respect of the weighing and measuring of articles and vehicles, such charges as they may from time to time determine.

60. A local authority who maintain a market, whether or not they are a market authority within the meaning of this Act, may make byelaws —

- a) for regulating the use of the market place, and the buildings, stalls, pens and standings in that market place;
- b) for preventing nuisances or obstructions in the market place, or in the immediate approaches to it;
- c) for regulating porters and carriers resorting to the market, and fixing the charges to be made for carrying articles from the market within the district.

#### Part IV

##### *Sale of food by hawkers*

62. A local authority may resolve that this Part is to apply to their area, and if a local authority do so resolve—

- a) this Part shall come into force in their area on the day specified in that behalf in the resolution; but
- b) that day must not be before the expiry of the period of one month beginning with the day on which the resolution is passed.

64. -(1) In any area in which this and the following sections of this Part are in force—

- a) no person shall hawk food unless he is registered under those sections by the local authority for the area; and
- b) no premises shall be used as storage accommodation for any food intended for hawking unless the premises are so registered.

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## **7.2.2 Details of practices**

### **7.2.2.1 BYELAWS AND REGISTRATION OF TRADERS**

***The retailer must check with each local authority in whose area he intends to trade as to whether he is required to register and whether there are any conditions or restrictions imposed under byelaws as to the areas or streets of operation or nature of his business. Market traders must also check with local authorities or appointed market superintendents that there are no local rulings or conditions applied to the markets that they wish to trade on.***

Local authorities have the power to create byelaws regarding the handling and sale of food, the licensing of traders and the control of markets.

Each local authority can choose to demand the registration of all hawkers of food who trade in the area controlled by the authority and to charge a fee for registration. If registration is adopted by the authority then premises at which food is stored by hawkers must also be registered. The fees charged vary greatly from one authority to another.

### **7.2.2.2 USING A DIGITAL ELECTRONIC PROBE THERMOMETER**

***The frequent use of an accurate thermometer is essential for maintaining fish quality. A digital electronic probe thermometer is recommended.***

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**7.2.2.3 SI 1966 No. 791**  
**The Food Hygiene (Markets, Stalls and Delivery Vehicles) Regulations 1966**

Part III

*Food to be protected from risk of contamination*

7. A person who engages in the handling of food shall, while so engaged, take all such steps as may be reasonably necessary to protect the food from the risk of contamination, and in particular (without prejudice to the generality of the foregoing)–

- a) shall not so place the food as to involve any risk of contamination;
- b) shall, before offering any food for sale, ensure that
  - i) any part of that food which is unfit for human consumption is removed, and
  - ii) any food which is unfit for human consumption, unsound or unwholesome is kept apart from any other food;
- c) shall not in or about any forecourt, yard, market or stall, place any food lower than eighteen inches from the ground unless it is adequately protected from risk of contamination and
- d) shall ensure that open food is kept covered where reasonably necessary with a clean cover while exposed for sale and during sale or delivery;

Provided that paragraph (b) of this regulation shall not apply where food is intended to be sold by wholesale either by sample or description.

**7.2.2.4 SI 1966 No. 791**  
**The Food Hygiene (Markets, Stalls and Delivery Vehicles) Regulations 1966**

Part III

*Food to be protected from risk of contamination*

7. A person who engages in the handling of food shall, while so engaged, take all such steps as may be reasonably necessary to protect the food from the risk of contamination, and in particular (without prejudice to the generality of the foregoing)–

- a) shall not so place the food as to involve any risk of contamination;

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The thermometer will not read instantly – it takes a few seconds to settle to a steady reading depending upon the conditions. It will take longer to settle if the probe is moved quickly through a large temperature range, or if measuring air temperatures rather than fish or water temperatures.

To measure chilled fish temperatures the probe should be inserted into the fish and the reading allowed to settle. To measure frozen fish temperatures the probe can be sandwiched between two fish or packs of fish. However it is quite possible, particularly with large fish, that the core temperature is different from the surface temperature. A special probe can be hammered into the fish to measure core temperature. When measuring air temperature, of chill or frozen stores for example, it is important that any doors or covers, etc., are in place as required and that sufficient time is allowed for the reading to settle. To avoid cross-contamination the probe must be cleaned between measurements of different types of fish and product, particularly before measuring the temperature of cooked products.

Periodically, at least once per week and whenever unusual temperatures are found, the accuracy of the thermometer should be checked. This is done by immersing and stirring the probe in a small container of heavily-iced fresh water. The thermometer should read 0°C to within a fraction of a degree. If it does not, and the battery is in good condition, then the thermometer should be returned to the manufacturer for maintenance and re-calibration. It should be noted that salty or contaminated water or ice can stabilise at a temperature several degrees below zero.

#### **7.2.2.3 FISH PURCHASE**

***When purchasing fish the quantities and quality of each species and product must be clearly specified. The requirements for packaging and labelling must be defined, as must the conditions and practices during delivery or collection. All fish must be checked on reception and placed directly in chill or frozen storage or display as appropriate. Chilled fish must be re-iced if necessary.***

Details of the recommendations for purchasing fish and of the practices during delivery or collection and for checking at reception are given in Section 5 *Recommendations for purchasing fish.*

#### **7.2.2.4 VEHICLE LOADING AND TRANSIT**

***Fish must be held in chill or frozen storage during transit and fish and all materials and equipment which may come into contact with fish must be protected from contamination.***

***Sufficient ice for fish storage and display throughout the trader's cycle of operation must be loaded into chill storage on the vehicle.***

***Water tanks or containers must be filled from a public mains supply.***

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- b) shall, before offering any food for sale, ensure that
    - i) any part of that food which is unfit for human consumption is removed, and
    - ii) any food which is unfit for human consumption, unsound or unwholesome is kept apart from any other food;
  - c) shall not in or about any forecourt, yard, market or stall, place any food lower than eighteen inches from the ground unless it is adequately protected from risk of contamination and
  - d) shall ensure that open food is kept covered where reasonably necessary with a clean cover while exposed for sale and during sale or delivery;

Provided that paragraph (b) of this regulation shall not apply where food is intended to be sold by wholesale either by sample or description.

*Carriage and wrapping of food*

10 A person who engages in the handling of food shall not while so engaged—

- a) carry any food in a vehicle or container together with any article from which there is a risk of contamination of the food, or with any live animal or live poultry, without taking all such precautions as are reasonably practicable to avoid risk of contamination, and in particular (without prejudice to the generality of the foregoing) shall not allow any live animal or live poultry to come into contact with any food.

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***An adequate supply of consumables, such as wrapping paper and cleaning materials, must be loaded into dry storage on the vehicle.***

Care must be taken when loading vehicles to ensure that all fish, materials and equipment are safely stowed and protected from contamination from outside sources and from cross-contamination between the various types of fish and product. Directly after loading, all vehicle doors, windows and covers must be closed and secured. Ventilators must be left open.

It is recommended that traders with separate chill storage and display facilities load fish and ice into the chill store for transit and set up the display when on the sales pitch.

Door-to-door traders with deep-trunk combined storage and display facilities must ensure that on the round individual orders are accessible without disturbing the remainder of the fish.

The mechanisms of weigh scales should be locked during transit to prevent damage from vibration.

#### **7.2.2.5 THE SUPPLY AND HANDLING OF ICE**

***The retailer must plan ice production or purchase so that there is a readily accessible supply of clean, fresh ice at all times throughout the cycle of operation for the display and for re-icing of stored fish. Stocks of ice should be used in rotation, and to avoid cross-contamination ice must be discarded after use and must never be re-used.***

##### **7.2.2.5.1 Ice supply**

The quantity of ice required on the vehicle or stall will vary greatly with the type of trader but in order that sufficient ice is available to load up at the start of the cycle of operation it is necessary to plan ahead.

An ice machine at base will give a steady production but will switch off when its storage bin is full. To provide the quantity of ice required it is often necessary to remove ice from the machine for storage elsewhere. By running the machine at night production costs can be reduced by using off-peak power at a discounted tariff.

Where a reliable supply of ice is available and the retailer purchases ice the same consideration must be given to the hygienic handling and transport of the ice as is recommended for chilled fish.

##### **7.2.2.5.2 Handling and storage of ice**

On vehicles, stalls and at base ice must be stored in clean containers with lids and drainholes and held in chill conditions. Re-used non-returnable fish boxes are not suitable as they are absorbent and difficult to clean.

Ice exceeding the capacity of the bin of an ice machine at base should be stored in separate bins in a chill store.





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Ice should be used in rotation, especially if large quantities are stored, as certain bacteria grow even on ice and can contaminate fish. Also ice can consolidate into a solid mass during extended storage and then be difficult to break up for use. It is recommended that bins are emptied and cleaned out at least once per week.

Plastic or corrosion-resistant metal scoops or shovels are recommended for handling ice.

#### **7.2.2.6 CHILL STORAGE**

***Care given to the chilling of fish in storage and to the layout of the chill store is essential for reducing quality loss, avoiding cross-contamination and for stock rotation.***

***Iced storage is recommended for wet fish. To maintain a temperature close to 0°C there must be ice present around the fish at all times.***

***On vehicles and stalls it is recommended that chill storage depends entirely upon the use of ice to chill the fish. At base refrigerated storage is recommended for smoked fish, cooked fish and live shellfish, although ice can be used without direct contact to chill these fish.***

***At base and in separate chill stores on vehicles and stalls, batches of fish and any ice held in store must be kept in separate containers. Because of the limited facilities available it is strongly recommended that offal for animal feed is not stored on vehicles and stalls. Any offal held in store at base must be kept in separate containers.***

***At base and in separate chill stores on vehicles and stalls batches of fish should be identified with a date code, or stored in specific locations to indicate their age to assist in stock rotation.***

***In deep-trunk combined storage and display facilities on vehicles smoked fish, cooked fish and live shellfish must be kept in separate containers.***

***The doors of chill stores should not be left open or their lights switched on for longer than the minimum time necessary.***

***Thermostats on refrigerated stores must be set to give the required air temperature of +2°C around the fish.***

Merely placing fish in a chill store will not effectively lower its temperature as chills are designed for storage, not for cooling. Icing will effectively cool fish, but direct contact with ice can result in smoked fish and cooked fish being washed-out by melt water, and can kill live shellfish.

Fish should not be subject to disturbance or pressure during storage which can result in physical damage. It is particularly important on vehicles that fish is not subject to pressure as shock loads and vibration when in transit magnify the effect.

Care must be taken to ensure that expanded polystyrene fish boxes are well stowed as they are subject to damage in transit.

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**7.2.2.6.1 SI 1966 No. 791**

**The Food Hygiene (Markets, Stalls and Delivery Vehicles) Regulations 1966**

**Part III**

*Carriage and wrapping of food*

10. A person who engages in the handling of food shall not while so engaged—

- a) carry any food in a vehicle or container together with any article from which there is a risk of contamination of the food, or with any live animal or live poultry, without taking all such precautions as are reasonably practicable to avoid risk of contamination, and in particular (without prejudice to the generality of the foregoing) shall not allow any live animal or live poultry to come into contact with any food; or
- b) use for wrapping or containing any open food any paper or other wrapping material or container which is not clean or which is liable to contaminate the food, and shall not allow any printed material, other than printed material designed exclusively for wrapping or containing food, to come into contact with any food other than uncooked vegetables or unskinned rabbits or hares or unplucked game or poultry.

**SI 1970 No. 1172**

**The Food Hygiene (General) Regulations 1970**

**Part III**

*Food to be protected from risk of contamination*

9. A person who engages in the handling of food shall, while so engaged, take all such steps as may be reasonably necessary to protect the food from risk of contamination, and in particular (without prejudice to the generality of the foregoing)—

- e) shall not keep in any food room any animal feed unless it is in a container of such material and so closed as to prevent the risk of contaminating the food in the room;

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#### **7.2.2.6.1 The use of containers in a separate chill store**

Chilled fish may be stored in drawers, plastic boxes or trays depending upon the type of chill store used. Containers for wet fish and live shellfish must have drainholes. Containers for smoked fish and cooked fish should not have drainholes. All containers for fish should preferably be lidded. Containers for ice storage must be lidded and have drainholes. Containers for offal storage must be lidded and leakproof and clearly labelled.

At base and in separate chill stores on vehicles and stalls batches of fish may be stored undisturbed in the non-returnable boxes in which they are supplied, re-iced if necessary, provided that the boxes are undamaged. However, these boxes must not be re-used for further batches of fish as they are absorbent and difficult to clean.

#### **7.2.2.6.2 Icing practice for a separate chill store**

For whole wet fish a layer of ice should be put in the container, and then the fish laid in rows followed by further ice to completely cover the fish. Gutted fish should be laid belly down to assist drainage, and ungutted fish should be laid belly up to avoid pressure damage to the soft belly. It is recommended that large fish are stored in a single layer. Small fish can be stored in several layers with ice between the layers to a total depth of fish and ice of no more than 20cm.

For fillets a layer of ice should be put in the container and covered with a sheet of wet-strength paper or polythene film. The fillets should be laid flat onto the sheet to a depth of fillets no more than 10cm. The fillets should be covered with another sheet and then completely covered with further ice. The sheets are necessary to prevent the fillets from being softened and marked by melt water and ice. For further protection skin-on fillets should be paired for stowage with the flesh of each pair in contact and the skin outermost.

Containers must not be overfilled with fish and ice to prevent the fish from being placed under pressure when stacked.

Smoked fish, cooked fish and live shellfish should not be directly covered in ice. It is recommended that smoked fish and cooked fish are placed in leakproof containers set into the ice. Unless held in aerated sea water tanks, live crustacea are best densely packed in boxes and covered with wet hessian sacking or similar absorbent material with ice placed on top of the sacking, if necessary, to lower their temperature to below +8°C. Live molluscs are best tightly packed in damp sacks, again with ice placed on top of the sacks, if necessary, to lower their temperature to below +8°C.

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**7.2.2.6.3 SI 1966 No. 791**

**The Food Hygiene (Markets, Stalls and Delivery Vehicles) Regulations 1966**

**Part III**

*Food to be protected from risk of contamination*

7. A person who engages in the handling of food shall, while so engaged, take all such steps as may be reasonably necessary to protect the food from the risk of contamination, and in particular (without prejudice to the generality of the foregoing)–

- a) shall not so place the food as to involve any risk of contamination;
- b) shall, before offering any food for sale, ensure that
  - i) any part of that food which is unfit for human consumption is removed, and
  - ii) any food which is unfit for human consumption, unsound or unwholesome is kept apart from any other food;
- c) shall not in or about any forecourt, yard, market or stall, place any food lower than eighteen inches from the ground unless it is adequately protected from risk of contamination and
- d) shall ensure that open food is kept covered where reasonably necessary with a clean cover while exposed for sale and during sale or delivery;

Provided that paragraph (b) of this regulation shall not apply where food is intended to be sold by wholesale either by sample or description.

**7.2.2.6.4 SI 1966 No. 791**

**The Food Hygiene (Markets, Stalls and Delivery Vehicles) Regulations 1966**

**Part IV**

*Accumulation of refuse, etc.*

20. No refuse or filth, whether solid or liquid, shall be deposited or allowed to accumulate at any stall or in any market on or from which a food business is carried on or on any delivery vehicle, except so far as may be avoidable for the proper carrying on of the trade or business.

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The quantities of ice required and the frequency of re-icing necessary will depend upon the conditions. To avoid disturbing the fish, re-icing should consist of top-icing only.

#### **7.2.2.6.3 The layout in a separate chill store**

In store at base it is recommended that separate areas are allocated for storing fish on reception, for prepared fish ready for transit, and for fish to be held over after trading.

At base and on vehicles and stalls, different types of fish and product and any ice stored in the chill must be stored separately in clearly designated areas. Under no circumstances must wet fish be allowed to drip or drain onto other types of fish or product or stored ice. It is especially important that products which may be eaten without cooking are protected from contamination to avoid any danger to public health. Smoked fish and cooked fish must be stored above or to one side of wet fish.

If it is necessary to store at base any offal intended for animal feed and it cannot be stored in a completely separate chill store then it must be kept in clearly marked containers and must be kept well away from fish intended for human consumption.

Containers for fish or ice storage which do not have raised bases should not be placed directly on the chill floor where pools of contaminated melt water can form.

#### **7.2.2.6.4 Operation of a separate chill store**

The entry of warm air should be minimised by keeping chill doors/lids closed when the chill is not in use. Chill lights should be switched off when the chill is not in use.

The practices for operation of a refrigerated chill store at base, including air temperature measurement, thermostat adjustment, air circulation and defrosting must comply with the recommendations given for shops in Section 7.1.2.4.4 *Operation of chill store*.

Chill stores on vehicles and stalls that drain melt water via a valve to separate containers not attached to the vehicle or stall must be periodically drained so that melt water does not accumulate within the store. An accumulation of melt water can contaminate or waterlog the fish and can increase the rate of ice meltage. Melt water can be emptied directly over a drain or into containers to be tipped down a drain. When on the sales pitch and when vehicles are parked it is recommended that the valve is left open to drain into a container left in position. It is important that the sales pitch or other public places are not contaminated by pools of melt water which can result in offensive odours.

#### **7.2.2.6.5 Deep-trunk store/display**

This facility combines fish and ice storage and display into a single heavily iced deep trunk. Wet fish is stored in bulk in the trunk, not in containers, and thus it is impractical to completely separate and label each batch of fish. The trader must take particular care when operating this facility to separate the various types of wet fish as much as possible, to carefully stow the fish to avoid crushing damage and the waterlogging of fillets in deep stowage, and to ensure that the trunk is emptied at the end of each operating cycle so that batches of fish do not become mixed.



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Sufficient ice must be loaded into the trunk to chill the fish throughout the trader's cycle of operation. It is recommended that a bed of ice at least 10cm deep is laid on the base of the trunk. A deeper layer will probably be required if the cycle of operation lasts several days.

It is recommended that each type of wet fish is laid in separate piles on the bed of ice. Whole fish and fillets should be in segregated areas and white fish, oily fish and the cartilaginous species should be separated as much as possible. Door-to-door traders must ensure that their orders will be accessible in sequence. Fish must not be piled against the sides of the trunk.

Whole fish should be aligned neatly, belly side down, if gutted, to assist drainage. Fillets should be neatly piled, and paired with the flesh side together if unskinned. It is recommended that a sheet of wet-strength paper or polythene film is placed under and on top of each separate pile of fillets to prevent marking and softening by ice and melt water.

The spaces between the piles of fish and between the fish and the sides of the trunk must then be filled with ice and a generous layer placed on top so that the fish is completely surrounded by ice. The total depth of stowage of fish and ice should not exceed 0.4 metres.

It is recommended that smoked fish, cooked fish and live shellfish are placed in separate leakproof containers set into the ice on top of the trunk with ice built up around the sides of the containers. Leakproof containers are recommended for live shellfish to avoid contaminating the fish below.

To reduce ice meltage it is recommended that the trunk is covered during transit and storage. Because of the deep ice bed it is particularly important that drainage is frequent or continuous as described in Section 7.2.2.6.4 *Operation of a separate chill store*.

#### **7.2.2.7 FROZEN STORAGE AND DISPLAY**

***Any frozen fish stored or displayed on vehicles or stalls must be maintained at a temperature of -18°C or lower.***

***Because of the difficulty of continuously maintaining the required fish temperature on vehicles and stalls it is recommended that in most circumstances fish is not displayed for sale in the frozen state.***

***Refrigerated facilities can be readily provided at base for the storage of stocks of frozen fish for thawing. Practices for frozen storage including stock rotation, frozen store air temperature measurement, thermostat adjustment, defrosting and the safety of personnel must comply with the recommendations given for shops.***

Recommendations for shops are given in Section 7.1.2.5 *Frozen storage*.



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#### 7.2.2.10 Food Act 1984

##### Part I

###### *Composition and labelling of food*

2.-(1) If a person sells to the purchaser's prejudice any food which is not-

- a) of the nature, or
- b) of the substance, or
- c) of the quality,

of the food demanded by the purchaser, he is guilty of an offence, subject to section 3.

###### *Food unfit for human consumption*

8.-(1) A person who-

- a) sells or offers or exposes for sale, or has in his possession for the purpose of sale or of preparation for sale, or
- b) deposits with, or consigns to, any person for the purpose of sale,

any food intended for, but unfit for human consumption is guilty of an offence.

(2) Where food of which an offence under paragraph (a) of subsection (1) has been committed was sold to the offender by some other person that person is also guilty of an offence.

#### SI 1966 No. 791

#### **The Food Hygiene (Markets, Stalls and Delivery Vehicles) Regulations 1966**

##### Part III

###### *Food to be protected from risk of contamination*

7. A person who engages in the handling of food shall, while so engaged, take all such steps as may be reasonably necessary to protect the food from the risk of contamination, and in particular (without prejudice to the generality of the foregoing)-

- a) shall not so place the food as to involve any risk of contamination;
- b) shall, before offering any food for sale, ensure that
  - i) any part of that food which is unfit for human consumption is removed, and
  - ii) any food which is unfit for human consumption, unsound or unwholesome is kept apart from any other food;
- c) shall not in or about any forecourt, yard, market or stall, place any food lower than eighteen inches from the ground unless it is adequately protected from risk of contamination and
- d) shall ensure that open food is kept covered where reasonably necessary with a clean cover while exposed for sale and during sale or delivery;

Provided that paragraph (b) of this regulation shall not apply where food is intended to be sold by wholesale either by sample or description.

#### 7.2.2.10.1 SI 1966 No. 791

#### **The Food Hygiene (Markets, Stalls and Delivery Vehicles) Regulations 1966**

##### Part III

###### *Carriage and wrapping of food*

10. A person who engages in the handling of food shall not while so engaged -

- a) carry any food in a vehicle or container together with any article from which there is a risk of contamination of the food, or with any live animal or live poultry, without taking all such precautions as are reasonably practicable to avoid risk of contamination, and in particular (without prejudice to the generality of the foregoing) shall not allow any live animal or live poultry to come into contact with any food; or

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#### **7.2.2.10 ICED SLAB DISPLAY**

***For market and fixed pitch traders an eye-catching colourful display of a variety of species and products attractively laid out is a powerful stimulus to sales. However, fish on display are particularly vulnerable to contamination and to temperature rises.***

***It is recommended that the display is set up after arrival on the sales pitch. Only sufficient fish to create an attractive display should be laid out, and the display should be replenished from chill store during the day as fish is sold.***

***Each batch of fish must be inspected before being placed on display and any fish of poor quality rejected.***

***The layout of the display must protect the fish from contamination and avoid cross-contamination. If poultry, game or other meat products are sold they must be displayed separately.***

***It is recommended that the display depends entirely on the use of ice to chill the fish.***

***Wet fish can be laid directly on a bed of ice. Alternatively fish should be laid out on trays or in tubs placed on the ice.***

***To maintain temperatures close to 0°C fish must be laid in a shallow layer on a deep bed of ice, and wet fish must be iced on top and re-iced during the day so that a sprinkling of top-ice is always present.***

The skill necessary to create an attractive display cannot be taught in these Guidelines but should be developed by the retailer. The use of a range of fish and product types and colours including interesting types of whole fish assists, but all the fish must be in acceptable condition and their layout must comply with the recommendations given to prevent cross-contamination.

Particular care must be taken by systematic temperature measurement to ensure that fish temperatures remain within the required ranges on display. High temperatures resulting from incorrect lighting, sunlight, warm draughts and from ***inadequate icing*** are commonplace.

Ice meltage on display is expected and is necessary to keep fish moist and the display looking fresh and clean. Melt water must be drained as recommended in Section 7.2.2.6.4 *Operation of a separate chill store*.

##### **7.2.2.10.1 The use of trays and containers**

Fish laid directly on ice without trays or tubs can, if skilfully done, make a very attractive display with good chilling and drainage of the fish resulting from direct ice contact. However, care must be taken to avoid cross-contamination on the ice between the various types of fish and product. This method is well suited to most wet fish, but is less suited to smoked fish which can become washed-out by melt water if covered in ice and to live shellfish which can be harmed by direct ice contact, and is not suitable for cooked fish, including hot smoked fish, because of the risk of contamination.

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- b) use for wrapping or containing any open food any paper or other wrapping material or container which is not clean or which is liable to contaminate the food, and shall not allow any printed material, other than printed material designed exclusively for wrapping or containing food, to come into contact with any food other than uncooked vegetables or unskinned rabbits or hares or unplucked game or poultry.

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The use of trays and tubs allows the retailer to prepare sections of the display beforehand, store them in chill and bring them out for display when required. Small fish and shellfish can be easier to serve from a tray or tub than directly from a bed of ice. Trays and tubs ensure that different fish and products are segregated and reduce the dangers of cross-contamination.

Trays are suited to large fish, and tubs to small shellfish. Trays or tubs for wet fish or live shellfish must have drainholes. Trays or tubs for smoked or cooked fish should not have drainholes.

#### **7.2.2.10.2 Setting up and replenishing an iced slab**

It is recommended that at the beginning of the day a bed of ice at least 10cm thick is laid on the slab. Fish or trays can then be laid directly on the ice.

It is recommended that whole fish are laid out on the ice or on clean trays in neat rows in a single layer. Small fish such as sprats or sardines should be laid out in a shallow layer up to 6cm deep. Gutted fish should be laid belly down to assist drainage. It is recommended that fillets are laid out neatly skin side down (if unskinned) in a shallow layer up to 5cm deep. Steaks should be laid in a single layer to avoid blood staining.

Wet fish should then be sprinkled liberally with ice on top, and re-icing should be continued throughout the day to ensure the fish remain chilled and moist.

Smoked fish and live shellfish can, with care, be laid directly on the ice or on a sheet of wet-strength paper or polythene laid on the ice, but should not be iced on top. Cooked fish should be laid on trays and should not be iced on top.

Pink fleshed salmon or trout fillets or steaks should not come into direct contact with ice as their colour can be washed out. They should be laid on a tray or sheet and handled as for smoked fish.

Fish should not be laid out in layers deeper than those recommended, particularly fish which cannot be top-iced, as chilling will not then be effective.

It is recommended that small shellfish and live molluscs are placed in tubs set into the ice and the ice built up around the sides of the tubs.

When the display stock of a particular type of fish or product is running low and requires replenishment the remaining stock should be removed and fresh stock laid out, and the old stock replaced on top to continue stock rotation. This is simplified if trays are used as a fresh tray already loaded with replacement stock has simply to be exchanged with the original. To avoid contamination the original tray must be replaced by a clean tray. If the fish is laid on a sheet on the ice then the sheet must be replaced.

A full display will be required for periods of peak trading, but provided a full range is on display the monger should allow stocks to run down towards the end of the day if replacement stock is likely to remain unsold.

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**7.2.2.10.3 SI 1966 No. 791**

**The Food Hygiene (Markets, Stalls and Delivery Vehicles) Regulations 1966**

**Part III**

*Food to be protected from risk of contamination*

7. A person who engages in the handling of food shall, while so engaged, take all such steps as may be reasonably necessary to protect the food from the risk of contamination, and in particular (without prejudice to the generality of the foregoing)–

- a) shall not so place the food as to involve any risk of contamination;
- b) shall, before offering any food for sale, ensure that
  - i) any part of that food which is unfit for human consumption is removed, and
  - ii) any food which is unfit for human consumption, unsound or unwholesome is kept apart from any other food;
- c) shall not in or about any forecourt, yard, market or stall, place any food lower than eighteen inches from the ground unless it is adequately protected from risk of contamination and
- d) shall ensure that open food is kept covered where reasonably necessary with a clean cover while exposed for sale and during sale or delivery;

Provided that paragraph (b) of this regulation shall not apply where food is intended to be sold by wholesale either by sample or description.

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#### **7.2.2.10.3 The layout**

It is essential that the different species and product types of wet fish, smoked fish, cooked fish and the various types of shellfish are placed in separate areas of the display to avoid any danger of cross-contamination and to enable clear labelling.

Wet fish and live shellfish must be placed where they can be removed without dripping onto other products, particularly products which may be eaten without further cooking. Wet fish and live shellfish can be laid out along the side of the display from which the monger serves, but often this side is at the top of the display drainage slope. To avoid cross-contamination from drainage down the slope, especially when the fish are not on trays or in tubs, it is preferable to divide the length of the display running across the slope into sections, each separate section running from the top to the bottom of the drainage slope, and to segregate the various types of fish and product in these sections.

#### **7.2.2.10.4 Decorative material**

If decorative material is used to add colour to the display it must be placed between the separate products and not on the fish. Plastic materials must be kept scrupulously clean and fresh produce must be washed before putting on display and not re-used.

#### **7.2.2.11 SALES PRACTICES**

***To attract customers, vehicles and stalls must have interesting and pleasant decor, be well lit, and must be kept clean, tidy and in good order.***

***The trader offering a pleasant, helpful and professional service will sell more fish.***

***All fish and products displayed must be clearly labelled with permitted names and have prices marked.***

***In sales areas the dangers of contamination of the fish and of cross-contamination between the various types of fish and product are high, and particular care must be taken.***

***It is recommended that only minor processing operations required by the customer, such as trimming and portioning, are carried out.***

***Fish handling areas must be kept clean and tidy to avoid contamination of the fish.***

***Great care must be taken to prevent the cross-contamination from work surfaces and utensils of any fish which may be eaten without further cooking.***

***Poultry, game and other meat products must be kept separate from fish and handled using separate equipment and utensils.***

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#### **7.2.2.11.1 Food Act 1984**

##### **Part I**

###### *Composition and labelling of food*

6.-(1) A person who gives with any food sold by him, or displays with any food exposed by him for sale, a label, whether or not attached to or printed on the wrapper or container, which –

- a) falsely describes the food, or
  - b) is calculated to mislead as to its nature, or its substance or its quality,
- is guilty of an offence, unless he proves that he did not know, and could not with reasonable diligence have ascertained, that the label was of such character as mentioned above.

##### **SI 1984 No. 1305**

##### **The Food Labelling Regulations 1984**

##### **Part II**

###### *Prohibition of misleading presentation*

4. The presentation of food shall not be such that a purchaser is likely to be misled to a material degree as to the nature, substance or quality of the food.

##### **Part III**

###### *General labelling requirement*

6. Subject to the following provisions of this Part of these regulations, all food which this Part of these regulations applies shall be marked or labelled with –

- a) the name of the food;
- b) a list of ingredients;
- c) an indication of minimum durability;
- d) any special storage conditions or conditions of use;
- e) the name or business and an address or registered office of the manufacturer or packer, or of a seller established within the European Economic Community;
- f) particulars of the place of origin of the food if failure to give such particulars might mislead a purchaser to a material degree as to the true origin of the food; and
- g) instructions for use if it would be difficult to make appropriate use of the food in the absence of such instructions.

###### *Name prescribed by law*

7.-(1) If there is a name prescribed by law for a food, that is to say if a particular name is required to be used for the food, that name shall be used as the name of the food.

###### *Indication of physical condition or treatment*

12.-(1) Where a purchaser could be misled by the omission of an indication –

- a) that a food is powdered or is in any other physical condition, or
- b) that a food has been dried, freeze-dried, frozen, concentrated or smoked, or has been subjected to any other treatment,

the name of the food shall include or be accompanied by such an indication.

(2) Without prejudice to the generality of paragraph (1) of this regulation, the name used for a food specified in Schedule 2 shall include or be accompanied by such indication as is required by that schedule.

###### *Foods which need not bear an indication of minimum durability*

22. The following foods need not be marked or labelled with an indication of minimum durability:–

- j) deep-frozen (including quick-frozen) food;
- m) any food with a minimum durability of more than eighteen months.

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The art of salesmanship cannot be taught in these Guidelines but should be developed by the retailer. The use of promotional material, including recipe leaflets is recommended. The monger should recommend alternative species and products and be able to assist customers who are unfamiliar with the characteristics and preparation of them.

#### **7.2.2.11.1 Labelling**

Each type of unpacked fish and product on display must be clearly and (except where impossible) individually labelled with a permitted name and an indication of any previous processing or additives used. Permitted names are specified by law and are given in Appendix III *Fish classification, names, characteristics and products*. Fish which have been previously frozen, and fish which have been dyed, or polyphosphated must be labelled as such. On iced slab displays each type of fish must be individually labelled but where individual labelling is impractical, for example within a door-to-door vehicle with deep trunk storage/display, a prominently displayed board will suffice.

Fish prepackaged for retail sale other than that packaged by the retailer must be marked on the packs, or on labels attached to the packs, with a wide range of information specified in the legislation. Each type of fish packaged by the retailer must be individually labelled with a permitted name and an indication of any previous processing or additives used.

The unit price of each type of fish and product sold must be clearly displayed. Prices should preferably be marked on the individual descriptive labels by each type of fish or product (or on each pack if the fish is packaged), or can be on a prominently displayed board.

The use of an unapproved name, or misleading labelling or pricing, or lack of labelling or pricing is illegal.

To avoid contamination, labels or price tickets should not be placed in direct contact with the fish. They should be clipped to the tray or tub or stuck in the ice or stood adjacent to the fish. They must be kept clean.



*Food which is not prepacked and similar food*

24.-(1) This regulation applies to –

- a) food which is not prepacked,
- b) food which is prepacked for direct sale, and
- c) flour confectionery which is packed either in a crimp case only or in wholly transparent packaging which is either unmarked or marked only with an indication of the price of the food, if there is not attached to the flour confectionery or its packaging any document, notice, label, ring or collar (other than a label on which only the price of the food is marked),

but does not apply to any such food to which regulation 28 or 29 applies.

(2) Food to which this regulation applies need not be marked or labelled with any of the particulars specified in regulation 6, except that any such food, other than –

- a) food which is not exposed for sale,
- b) white bread,
- c) flour confectionery, and
- d) carcasses and parts of carcasses which are not intended for sale in one place,

shall be marked or labelled with the name of the food.

(3) In this regulation and in regulation 29 "prepacked for direct sale" means –

- a) in relation to any food other than edible ices, flour confectionery and bread, prepacked by a retailer for sale by him on the premises where the food is packed or from a vehicle or stall used by him, and
- b) in relation to edible ices, flour confectionery or bread, prepacked by a retailer for sale aforesaid or prepacked for sale on premises where business is conducted by the producer of the food under the same name as the business conducted on the premises where the food is produced.

*Indication of additives*

26.-(1) Subject to the following paragraphs of this regulation, any food which –

- a) by virtue of regulation 24 or 25 alone is not marked or labelled with a list of ingredients, and
- b) contains any additive which –
  - i) but for regulations 24 and 25, would be required to be named in the list of ingredients of the food, and
  - ii) was added to or used in the food or an ingredient of the food to serve the function of an antioxidant, artificial sweetener, colour, flavour enhancer, flavouring or preservative

shall be marked or labelled with an indication of every such category of additives that is contained in the food.

*General requirement*

32.-(1) When any food other than food to which regulation 24, 25, 28 or 29 applies is sold to the ultimate consumer, the particulars with which it is required to be marked or labelled by these regulations shall appear –

- a) on the packaging, or
- b) on a label attached to the packaging, or
- c) on a label that is clearly visible through the packaging.

*Food to which regulation 24, 25, 28 or 29 applies*

33.-(1) When any food to which regulation 24, 25, 28 or 29 applies is sold to the ultimate consumer, the particulars with which it is required to be marked or labelled by these regulations shall appear –

- a) on a label attached to the food, or
- b) on a ticket or notice displayed in immediate proximity to the food.

*Intelligibility*

34.-(1) The particulars with which food is required to be marked or labelled by these regulations, or which appear on a notice pursuant to these regulations, shall be easy to understand, clearly legible and indelible and, when a food is sold to the ultimate consumer, the said particulars shall be marked in a conspicuous place in such a way as to be easily visible.

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**SI 1974 No. 1368**  
**The Price Marking (Meat and Fish) Order 1974**

**Schedule**

6. An indication of the unit price, if it is not marked on the goods or on the container, shall be easily recognisable by an intending purchaser under normal conditions of purchase as referring to the goods in question; but the indication need not be adjacent to the goods and may be grouped with other indications of the unit prices of other goods to which this Order applies in the form of a list or otherwise.

7. Where the indication of the unit price is not adjacent to the goods to which it refers it shall be in such a position that it is readily discernible by an intending purchaser from the place where he would under normal conditions of purchase select the goods, or, if he would not select the goods himself, where he would, under those conditions, ask for the goods. If there is more than one such indication in relation to any goods it shall be sufficient if one such indication complies with this paragraph.

8. If the indications of the selling price (whether required by this Order or not) and the unit price are both marked on the container they shall be in close proximity to one another but sufficiently distinct as not to confuse an intending purchaser under such conditions.

9. Any indication shall be clear and legible, and easily read by an intending purchaser under such conditions.

10. Where the indication of a unit price has been calculated by reference to the gross weight of the goods, that fact shall be clearly indicated.

**7.2.2.11.2 SI 1966 No. 791**  
**The Food Hygiene (Markets, Stalls and Delivery Vehicles) Regulations 1966**

**Part II**

*Cleanliness of equipment, etc.*

6.-(1) Articles of equipment with which food comes into contact, or is liable to come into contact, in the course of a food business shall be kept clean and shall be so constructed, be of such materials and be kept in such good order, repair and condition as to—

- a) enable them to be thoroughly cleaned, and
- b) prevent, so far as is reasonably practical, any matter being absorbed by them and any risk of contamination of the food.

**Part III**

*Food to be protected from risk of contamination*

7. A person who engages in the handling of food shall, while so engaged, take all such steps as may be reasonably necessary to protect the food from the risk of contamination, and in particular (without prejudice to the generality of the foregoing)—

- a) shall not so place the food as to involve any risk of contamination;
- b) shall before offering any food for sale, ensure that
  - i) any part of that food which is unfit for human consumption is removed, and
  - ii) any food which is unfit for human consumption, unsound or unwholesome is kept apart from any other food;
- c) shall not in or about any forecourt, yard, market or stall, place any food lower than eighteen inches from the ground unless it is adequately protected from risk of contamination and
- d) shall ensure that open food is kept covered where reasonably necessary with a clean cover while exposed for sale and during sale or delivery;

Provided that paragraph (b) of this regulation shall not apply where food is intended to be sold by wholesale either by sample or description.

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#### **7.2.2.11.2 Fish handling**

It is particularly important that the sales area is kept clean and tidy to avoid cross-contamination between the various types of fish and product which may be handled in rapid succession.

Fish must be inspected whilst they are being individually handled. Fillets should be trimmed to remove fins, bones and discolouration. Any fish which is wormy or in poor condition must be discarded.

All cutting surfaces and utensils must be kept clean, especially when changing from one type of fish or product to another. Knives must be kept sharp. A sharp knife produces a better product than a blunt knife and is safer in use. When not in use utensils should be hygienically stored in racks.

Waste must not be allowed to accumulate on work surfaces, in sinks or on the floor. Waste must be placed directly into lidded bins adjacent to the work surfaces.

When serving it is recommended that wet fish is removed from the display using a sheet or wrapping paper, and that separate colour coded tongs and scoops are used for smoked products, cooked products and the various types of shellfish.

#### Part IV

##### *Accumulation of refuse, etc.*

20. No refuse or filth, whether solid or liquid, shall be deposited or allowed to accumulate at any stall or in any market on or from which a food business is carried on or on any delivery vehicle, except so far as may be unavoidable for the proper carrying on of the trade or business.

### **7.2.2.11.3 Weights and Measures Act 1985**

#### Part II

##### *Weighing or measuring equipment for use for trade*

11.-(1) The provisions of this section shall apply to the use for trade of weighing or measuring equipment of such classes or descriptions as may be prescribed.

(2) No person shall use any article for trade as equipment to which this section applies or have any article in his possession for such use, unless that article, or equipment to which this section applies in which that article is incorporated or to the operation of which the use of that article is incidental, -

- a) has been passed by an inspector as fit for such use, and
- b) except as otherwise expressly provided by or under this Act, bears a stamp indicating that it has been so passed which remains undefaced otherwise than by reason of fair wear and tear.

17.-(1) If any person uses for trade, or has in his possession for use for trade, any weighing or measuring equipment which is false or unjust, he shall be guilty of an offence and the equipment shall be liable to be forfeited.

#### Part IV

##### *General Offences*

28.-(1) Subject to Sections 33 to 37 below, any person who, in selling or purporting to sell any goods by weight or other measurement or by number, delivers or causes to be delivered to the buyer -

- a) a lesser quantity than that purported to be sold, or
  - b) a lesser quantity than corresponds with the price charged,
- shall be guilty of an offence.

##### *Miscellaneous and supplementary*

45.-(1) For the purposes of this Part of the Act, without prejudice to any other method of making known to a person the quantity of any goods expressed in a particular manner, that quantity shall be taken to be made known to that person -

- a) if the goods are weighed or otherwise measured or counted, as the case may require, in the presence of that person,
- b) if the goods are made up in or on a container marked with a statement in writing of the quantity of the goods expressed in the manner in question and the container is readily available for inspection by that person, or
- c) upon such a statement in writing being delivered to that person.

46. For the purposes of this Part of this Act, a person shall not be taken to weigh or otherwise measure or count any goods in the presence of any other person unless he causes any equipment used for the purpose to be so placed, and so conducts the operation of weighing or otherwise measuring or counting the goods, as to permit that other person a clear and unobstructed view of the equipment, and of the operation, and of any indication of quantity given by any such equipment as the result of that operation.

### **7.2.2.11.4 SI 1970 No. 1172 The Food Hygiene (General) Regulations 1970**

#### Part III

##### *Carriage and wrapping of food*

12. A person who engages in the handling of food shall not while so engaged -

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#### **7.2.2.11.3 Weighing**

It is illegal to sell short weight, and in the retailer's own interest not to give fish away. On arrival at the sales pitch it is recommended that the level of the scales is checked and their accuracy tested with a check weight.

To avoid cross-contamination the scale pan must be kept clean and it is recommended that all fish and products are weighed on a fresh sheet of wrapping paper.

The customer's view of the weighing operation must not be obstructed.

#### **7.2.2.11.4 Wrapping**

It is recommended that all chilled fish and products are wrapped in wet-strength paper or polythene film and then overwrapped and sealed in polythene bags.

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- b) Use for wrapping or containing any open food any paper or other wrapping material or container which is not clean or which is liable to contaminate the food, and shall not allow any printed material, other than printed material designed exclusively for wrapping or containing food, to come into contact with any food other than uncooked vegetables or unskinned rabbits or hares or unplucked game or poultry.

**SI 1978 No. 1927**

**The Materials and Articles in Contact with Food Regulations 1978**

*Sale and use of materials and articles*

4.-(1) This regulation shall apply to materials and articles which are in their finished state and are intended to come into contact with food or which are in contact with food and are intended for that purpose.

(2) Materials and articles to which this regulation applies shall be manufactured in accordance with good manufacturing practice, that is to say in such a way that under normal or foreseeable conditions of use they do not transfer their constituents to foods with which they are, or are likely to be, in contact in quantities which could –

- i) endanger human health
- ii) bring about the deterioration in the organoleptic characteristics of such food or an unacceptable change in its nature, substance or quality.

(3) No person shall –

- a) sell,
- b) import, or
- c) use in the course of a business in connection with the storage, preparation, packing, selling or serving of food,

any such material or article which does not comply with this regulation.

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Polythene bags are inexpensive, readily available in a variety of sizes, and are easily fastened to prevent leakage of drip or fish odours. The latter is of particular importance to the convenience and satisfaction of the customer.

Newsprint must not be used, even for overwrapping, because of the possibility of contamination.

#### **7.2.2.11.5 Cash handling**

The customer's cash is potentially a serious source of contamination to the hands of the monger. Handling of both cash and fish should be avoided if possible.

If more than one person is serving it is recommended that one person handles cash and not fish.

#### **7.2.2.12 PRACTICES AT THE CLOSE OF TRADING**

***Chilled fish on display must be returned to chill storage and all remaining stocks of chilled fish must be inspected. Stored fish must be re-iced as necessary and any fish of poor quality or that will be of poor quality by the next trading session must be disposed of.***

***Waste, both solid and liquid, and used ice must be properly disposed of.***

***Vehicles, stalls, base facilities and all equipment and utensils must be cleaned down.***

***Vehicles and mobile stalls must be returned to base and be safely and hygienically stored.***

***Traders must not sleep on vehicles unless in a separate driving cab.***

At the end of each day's trading on vehicles and stalls with separate storage and display facilities any fish remaining on display must be returned to chill storage and be stored in accordance with the recommendations given in Section 7.2.2.6 *Chill storage*. On vehicles with deep trunk storage/display ice must be redistributed to cover the surface of the fish and the trunk should be covered.





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If facilities exist at the market site, waste and used ice should be disposed of there. Otherwise waste and used ice must be taken to a public disposal facility or back to the base facility for storage and disposal. Practices for waste disposal from base must comply with the recommendations given for shops in Section 7.1.2.12 *Waste disposal*.

The interior and equipment and utensils of vehicles and stalls must be tidied and cleaned as far as possible on the sales pitch. Equipment must be safely stowed, mobile stalls returned to their support vehicles and all vehicles doors, windows and covers must be closed and secured ready for transit.

Back at base, vehicles and stalls and their equipment and utensils including waste storage bins, tanks and containers must be thoroughly cleaned. Recommendations for cleaning and hygiene are given in Section 8 *Recommendations for cleaning and hygiene*.

Additional ice must be added to fish in storage if necessary. At the end of the trader's cycle of operation (which may last several days) the chill storage facilities on the vehicle or stall must be emptied and cleaned.

After cleaning and drying, all vehicle doors, windows and covers must be closed and secured and it is recommended that vehicles are parked in a clean off-street area. Ventilators must be left open. Stalls can be stored within their support vehicle or within a building providing protection from vermin.

# 8 Recommendations for cleaning and hygiene

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- 8.1 The importance and scope of hygiene
- 8.2 Cleaning and disinfection of facilities and equipment
  - 8.2.1 Methods of cleaning and disinfection
    - 8.2.1.1 Removal of gross dirt and debris
    - 8.2.1.2 Loosening of adhering dirt
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  - 8.2.2 Equipment and materials
    - 8.2.2.1 Cleaning equipment
    - 8.2.2.2 Water
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    - 8.2.3.1 Yards and reception areas
    - 8.2.3.2 Floors
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    - 8.2.3.5 Windows
    - 8.2.3.6 Chill rooms, refrigerators and cabinets
    - 8.2.3.7 Processing equipment
    - 8.2.3.8 Display surfaces
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    - 8.2.3.11 Waste storage areas and containers
  - 8.2.4 Procedures for mobile shops and market stalls
    - 8.2.4.1 Trading sites
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    - 8.2.4.3 Cleaning vehicles and stalls during the day
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- 8.3 Personal hygiene
  - 8.3.1 Protective clothing
  - 8.3.2 Hand-washing equipment
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  - 8.3.4 Freedom from infectious diseases
  - 8.3.5 First aid materials
  - 8.3.6 Cuts and abrasions
- 8.4 Dealing with pests

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**8.1 SI 1970 No. 1172  
The Food Hygiene (General) Regulations 1970**

**Part II**

*Food business not to be carried on at insanitary premises or place*

6. No food business shall be carried on at any insanitary premises or place or at any premises or place the condition, situation or construction of which is such that food is exposed to the risk of contamination.

**SI 1966 No. 791  
The Food Hygiene (Markets, Stalls and Delivery Vehicles) Regulations 1966**

**Part II**

*Food business not to be carried on from insanitary stalls or delivery vehicles*

4. No food business shall be carried on at or from any stall which is insanitary or which is so situated or constructed, or is in such a condition, that the food is exposed to the risk of contamination; and in the course of a food business no delivery vehicle shall be used which is insanitary or which is so constructed, or is in such a condition, that the food is exposed to the risk of contamination.

**8.2 SI 1970 No. 1172  
The Food Hygiene (General) Regulations 1970**

**Part II**

*Cleanliness of articles or equipment*

7.-(1) Articles or equipment with which food comes into contact, or is liable to come into contact, in the course of a food business shall be kept clean, and with the exception of non-returnable containers, shall be so constructed, be of such materials and be kept in such good order, repair and condition as to-

- a) enable them to be thoroughly cleaned;
- b) prevent, so far as is reasonably practicable, any matter being absorbed by them; and
- c) prevent, so far as is reasonably practicable, any risk of contamination of the food.

**Part IV**

*Cleanliness and repair of food rooms*

25. The walls, floors, doors, windows, ceiling, woodwork and all other parts of the structure of every food room shall be kept clean and shall be kept in such good order, repair and condition as to-

- a) enable them to be effectively cleaned; and
- b) prevent, so far as is reasonably practicable, any risk of infestation by rats, mice or insects.

**SI 1966 No. 791  
The Food Hygiene (Markets, Stalls and Delivery Vehicles) Regulations 1966**

**Part II**

*Condition of land, vehicles, etc., used for sale or delivery of food*

5.-(1) Every stall at or from which there is carried on any food business and every delivery vehicle which is used in the course of a food business shall be kept clean and in such good order, repair and condition as to enable it to be effectively cleaned.

*Cleanliness of equipment, etc.*

6.-(1) Articles or equipment with which food comes into contact, or is liable to come into contact, in the course of a food business shall be kept clean and shall be so constructed, be of such materials and be kept in such good order, repair and condition as to-

- a) enable them to be thoroughly cleaned, and
- b) prevent, so far as is reasonably practicable, any matter being absorbed by them and any risk of contamination of the food.

## 8 Recommendations for cleaning and hygiene

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### 8.1 The importance and scope of hygiene

***High standards of hygiene must be maintained at all times to comply with legislative requirements and to ensure a safe, wholesome, attractive product is sold free from any dangers of contamination or food poisoning.***

***A business with a clean, fresh and bright image is more likely to attract customers and also creates a pleasant environment for staff to work in.***

Good hygiene involves attention to the design and layout of premises, facilities and equipment, careful fish handling practices including proper temperature control and the avoidance of contamination and cross-contamination, maintaining high standards of personal cleanliness and behaviour particularly with regard to infectious diseases, the control of animal and insect pests, and the thorough cleaning and disinfection of premises, facilities and equipment.

Recommendations for design and layout are given in Section 6 *Recommendations for premises, vehicles and equipment* and recommendations for fish handling are given in Section 7 *Recommendations for practices*.

### 8.2 Cleaning and disinfection of facilities and equipment

***All facilities and equipment must be kept to a high standard of cleanliness.***

***Cleaning and disinfection are a vital part of the retailer's work. It is recommended that a cleaning schedule is followed and that a responsible member of staff periodically carries out an inspection to ensure that high standards are being maintained.***

The methods and frequency of cleaning required will depend upon the type and state of the dirt to be removed and the time and facilities available.

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**8.2.2 SI 1970 No. 1172**  
**The Food Hygiene (General) Regulations 1970**

**Part IV**

*Water supply to be provided*

17.-(1) Subject to the provisions of any certificate of exemption, a supply of water sufficient in quantity to enable these regulations to be complied with shall be provided at all food premises.

(2) Any such supply of water shall-

- a) be clean and wholesome;
- b) be constant, if the provision of a constant supply is reasonably practicable and is in accordance with good practice at premises used for business of a similar class.

*Facilities for washing food and equipment*

21.-(1) There shall be provided in all food premises where open food is handled sinks or other washing facilities suitable and sufficient for any necessary washing of food and equipment used in the food business; and in this regulation reference to a sink shall include a reference to any other suitable washing facility.

(2) There shall be provided for every such sink an adequate supply of hot and cold water or of hot water at a suitably controlled temperature, or cold water only where the sink is used-

- a) only for washing fish, fruit or vegetables; or
- b) for washing with a suitable bactericidal agent only drinking vessels, or only ice cream formers or servers.

(3) Every such sink shall be kept clean and in good working condition.

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### **8.2.1 METHODS OF CLEANING AND DISINFECTION**

***The basic steps for effective cleaning and disinfection of facilities and equipment are:***

- a) removal of gross dirt and debris***
- b) loosening and removal of adhering dirt***
- c) disinfection.***

#### **8.2.1.1 Removal of gross dirt and debris**

This may be by brushing or scraping, or for wet fish slime and residues by swilling with cold water. The use of water is recommended as the simplest, safest and cheapest method for removing dirt.

#### **8.2.1.2 Loosening of adhering dirt**

Not all dirt can be removed with water and it is necessary to select an appropriate detergent to soften and loosen the dirt. The dirt may then be removed by rinsing, brushing or applying high pressure water from a hose. All surfaces must be rinsed at this stage.

#### **8.2.1.3 Disinfection**

After cleaning, many surfaces, and especially those coming into contact with fish, need to be disinfected to kill bacteria. A suitable disinfectant should be chosen and after the appropriate contact time must be rinsed off.

### **8.2.2 EQUIPMENT AND MATERIALS**

***Fish retailers require a stock of cleaning equipment, a plentiful supply of both cold and hot water and stocks of appropriate detergents and disinfectants.***

***The equipment used for cleaning must be chosen so that it can be kept clean, will not harbour dirt or bacteria, and will not rot or corrode.***

A wide range of cleaning materials is available, including sanitisers which combine the cleaning properties of a detergent with the bactericidal effects of a disinfectant. These are only effective in areas which are already clean as disinfectant properties are seriously reduced in the presence of dirt.

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**SI 1966 No. 791**

**The Food Hygiene (Markets, Stalls and Delivery Vehicles) Regulations 1966**

**Part IV**

*Supply of water*

15. Subject to the provisions of regulation 24 and of any certificate of exemption, a supply of clean and wholesome water sufficient in quantity to enable these regulations to be complied with shall be provided and maintained in connection with every market or stall at or from which a food business is carried on and every delivery vehicle.

*Facilities for washing and sorting food and equipment*

18. Subject to the provisions of regulation 24 and of any certificate of exemption—

- a) there shall be provided and maintained at every stall from which a food business is carried on and on every delivery vehicle suitable and sufficient sinks or other facilities (not being wash-hand basins available for the purposes mentioned in regulation 16) for washing food and equipment used in the food business;
- b) there shall be provided and maintained for every such sink or other facility an adequate supply of either hot and cold water or of hot water at a suitably controlled temperature, except that a supply of cold water shall suffice—
  - i) where the facility consists of apparatus designed for the washing of drinking vessels with a suitable bactericidal agent and is used only for that purpose, or
  - ii) where the sink or other facility is used only for the washing of fish, fruit or vegetables;
- c) all sinks and other facilities and any working parts thereof used for the purposes of this regulation shall be kept clean and in efficient working order;
- d) there shall be provided and maintained for use at all such sinks and other facilities—
  - i) adequate supplies of soap or other suitable detergent and of clean cloths; or
  - ii) other adequate and suitable cleaning and drying facilities;

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#### **8.2.2.1 Cleaning equipment**

The retailer requires a supply of cloths and sponges for wiping down, brushes and mops for cleaning floors, hand brushes for removing stubborn dirt, and buckets.

Disposable cleaning cloths are recommended. Sponges and mops should be made of plastic and capable of withstanding high temperatures and strong disinfectants. Soft cotton strand mops are not hygienic and should not be used. Brushes should have stiff plastic fibres. Buckets should be made from stainless steel or alternatively robust non-pigmented food-grade plastic.

#### **8.2.2.2 Water**

Cold water is ideal for rinsing off fish slime and residues which have not dried and hardened. Warm water at about +40°C should be used for hand washing. Equipment and utensils should be washed in water at +60°C or above, and rinsing water should be at a similar temperature to assist air drying and the killing of bacteria.

Water under pressure from a hose or high pressure washer is recommended for cleaning large areas such as floors and walls. In addition, a high pressure washer is extremely useful for shifting dirt from inaccessible areas beneath equipment and inside awkward machinery.





### 8.2.2.3 Detergents

Different types of detergents are available and the choice depends on the nature of the dirt to be removed, the surface and the time available. In all cases, the manufacturer's instructions must be followed with regard to storage, dilution and precautions necessary when using the detergent.

For best results any large quantities of dirt should first be removed by brushing or scraping. Detergents are generally more effective when used as a hot solution with further brushing as necessary. After detergents have been used surfaces should always be rinsed with clean water to remove loose traces of dirt and any excess detergent. This prevents possible contamination of fish, reduces the risk of corrosion and makes the surface ready for disinfection if necessary. It is recommended that rinsing water is as hot as possible.

The following table lists types of detergent available and their applications. (Taken from BS 4259: 1968 *Recommendations on Cleaning in the Fish Industry*).

#### TYPES OF DETERGENT AND THEIR APPLICATION

Detergent Type	Typical Ingredients	Typical Applications	Limitations as to Use
Acidic	Acid, corrosion inhibitor, wetting agent*.	Removing heavy deposits of scale or dirt.	Extremely corrosive, must only be used when wearing protective clothing including goggles and gloves.
Neutral	Synthetic surface-active agent.	Removing oil and grease.	May foam in high pressure equipment.
Mildly alkaline	Synthetic surface-active agent, polyphosphate, silicate.	Removing fats and dissolving proteins.	Prolonged contact with skin should be avoided.
Strongly alkaline	Silicate, carbonate, polyphosphate, wetting agent*.	Softening water.	Contact with skin should be avoided.
Caustic+	Sodium or potassium hydroxide, sodium orthosilicate.	Removing stubborn fats, dried proteins and tar.	Extremely corrosive, must only be used when wearing protective clothing including goggles and gloves.
Abrasive	Abrasive powder (4% on 150 mesh sieve) wetting agent, alkali.	Scouring hardened residues.	Should not be used on soft surfaces such as plastics.

\* Detergents for use with mechanical applications should have low foaming properties.

+ This product will usually be applied neat.

### 8.2.2.4 Disinfectants

Disinfectants should be used as a safeguard where there is a need to kill bacteria. They should be used on all surfaces where fish is handled and on floors and down drains to prevent foul odours. If there is a possibility of fish coming into contact with a disinfected surface then the surface must be rinsed.

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**8.2.3 SI 1970 No. 1172**  
**The Food Hygiene (General) Regulations 1970**

**Part II**

*Cleanliness of articles or equipment*

7.-(1) Articles or equipment with which food comes into contact, or is liable to come into contact, in the course of a food business shall be kept clean, and with the exception of non-returnable containers, shall be so constructed, be of such materials and be kept in such good order, repair and condition as to-

- a) enable them to be thoroughly cleaned;
- b) prevent, so far as is reasonably practicable, any matter being absorbed by them; and
- c) prevent, so far as is reasonably practicable, any risk of contamination of the food.

**Part IV**

*Cleanliness and repair of food rooms*

25. The walls, floors, doors, windows, ceiling, woodwork and all other parts of the structure of every food room shall be kept clean and shall be kept in such good order, repair and condition as to-

- a) enable them to be effectively cleaned; and
- b) prevent, so far as is reasonably practicable, any risk of infestation by rats, mice or insects.

Choosing a disinfectant must be done with care. Many disinfectants have strong odours and should not be used as fish can pick up these odours and become tainted. Examples of disinfectants with strong odours include a range of phenolic fluids and pine oils.

The following table lists disinfectants suitable for use by a fishmonger.

#### **SUITABLE TYPES OF DISINFECTANTS AND THEIR APPLICATIONS**

Type	Typical Ingredients	Typical Applications	Limitations as to Use
1. Chlorine			
i. hypochlorite (liquid)	Sodium hypochlorite in solution to give 10% chlorine (common household bleach).	Diluted to 150ppm (half egg cup in 2 gallons) for general use on floors, walls and equipment, stronger solutions, up to 1000ppm may be used for very dirty surfaces.	Chlorine is extremely corrosive and must be handled with care, especially in concentrated solutions. It is advisable to rinse metal surfaces after 10 min exposure.
ii. CTSP crystals	Chlorinated trisodium phosphate.	As above, but less corrosive in solution.	As above, but more stable during storage.
iii. hypochlorite	Sodium or calcium hypochlorite.	Removal of stains on floors, walls etc.	As for liquid hypochlorite but easier and safer to handle.
2. Q.A.C.'s	Quaternary ammonium compounds.	Any surface requiring a non-toxic, non-corrosive disinfectant with a detergent action.	Readily inactivated by many substances including dirt, soap, nylon, plastics and detergents. Expensive.

### **8.2.3 PROCEDURES FOR SHOPS**

***Different procedures are required for each area of the shop and for each type of equipment.***

***It is recommended that daily, weekly and monthly routine cleaning schedules are established.***

***A 'clean-as-you-go' policy is recommended for busy areas.***

#### **8.2.3.1 Yards and reception areas**

Yards must be kept free from litter and brushed clean and hosed-down during the day. At the end of trading a final rinse with dilute hypochlorite solution (150ppm, half an egg cupful of bleach in 2 gallons of water) should be made to reduce bacterial contamination and prevent fishy odours which could attract flies and vermin.



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### **8.2.3.2 Floors**

Floors and any duck boards in processing, preparation and reception areas should be frequently brushed clean to remove any debris or offal then hosed down with cold water as operations proceed. At the end of trading a final rinse with dilute hypochlorite solution (150ppm) is recommended to reduce bacterial contamination and prevent fishy odours, leaving the areas smelling fresh for the next day's trading. Stubborn stains should be removed with an overnight application of bleaching powder.

Floors in retail areas should be brushed clean then mopped with a dilute disinfectant solution after trading. These floors should not be washed during trading if there is a danger of making the surface slippery.

Matting, sawdust or sheets of cardboard are not recommended for covering floors as they harbour dirt.

### **8.2.3.3 Drains**

All drains should be thoroughly swilled with cold water at the end of trading. Grids should be removed and cleared of debris by brushing or high pressure spraying. Waste traps should be checked at least once a week.

A strong solution of hypochlorite (50:50 bleach in water) should be poured down the drains once a week to kill any bacteria which could cause foul odours.

### **8.2.3.4 Walls, ceilings and woodwork**

Surfaces adjacent to fish handling and processing operations should be frequently swilled clean during the day whilst fish slime and residues are still wet. If the slime has hardened a solution of detergent in hot water should be used with a hand brush to remove stubborn residues. Special attention must be paid to cleaning round light switches, pipework and other dirt traps.

Ceilings and upper wall surfaces should be cleaned monthly with a mildly alkaline detergent.

### **8.2.3.5 Windows**

All windows and especially those adjacent to a fish display, must be kept clean and sparkling by washing and polishing with a wash leather.

### **8.2.3.6 Chill rooms, refrigerators and cabinets**

The floors and walls of large chills should be hosed down daily with cold water to remove fish slime and residues. Smaller units should be washed out once a week using a brush and bucket then sponged dry.

All exterior and interior surfaces should be washed down at least once a week with a mildly alkaline non-odorous detergent. Any shelving, trays, etc. used for storage should be scrubbed clean at least once a week.

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**8.2.3.10 SI 1970 No. 1172**  
**The Food Hygiene (General) Regulations 1970**

Part IV

*Sanitary conveniences*

16.-(1) Every sanitary convenience situated in, or regularly used in connection with, any food premises—

- a) shall be kept clean and in efficient order;
  - b) shall be so placed that no offensive odours therefrom can penetrate into any food room.
- (2) Any room or other place which contains a sanitary convenience shall be suitably and sufficiently lighted and ventilated and shall be kept clean.

**8.2.4 SI 1966 No. 791**  
**The Food Hygiene (Markets, Stalls and Delivery Vehicles) Regulations 1966**

Part II

*Condition of land, vehicles, etc., used for sale or delivery of food*

5.-(1) Every stall at or from which there is carried on any food business and every delivery vehicle which is used in the course of a food business shall be kept clean and in such good order, repair and condition as to enable it to be effectively cleaned.

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#### **8.2.3.7 Processing equipment**

Items such as knives, cutting boards, filleting troughs and sinks in continuous use should be frequently cleaned during the day by swilling with cold water. At the end of trading they should be scrubbed with a mildly alkaline detergent, disinfected, rinsed in hot water and allowed to air dry.

Free-standing and large items of equipment are best cleaned with a high pressure hose to reach inaccessible areas, followed by disinfection if required.

#### **8.2.3.8 Display surfaces**

At the end of trading, after all the fish and ice has been removed, the surface should be swilled clean and then scrubbed with a mildly alkaline detergent followed by disinfection and rinsing with hot water.

#### **8.2.3.9 Retail sales equipment**

Throughout the day any spills of fish slime etc. on the counter, scales, till etc. should be wiped with a clean cloth which should be renewed every few hours. After trading the whole area should be wiped down with a mild alkaline detergent, rinsed, then a disinfectant applied and allowed to air dry.

#### **8.2.3.10 Sanitary accommodation**

Toilets, urinals and associated wash-hand basins must be cleaned at least once a day and regularly inspected to make sure they are kept clean and provided with soap, clean towels etc. A cloth soaked in disinfectant solution should be used to wipe down water closets, basins and associated equipment including chains, levers, door handles, taps and light switches.

#### **8.2.3.11 Waste storage areas and containers**

The waste storage area must be kept tidy and must be kept clean by hosing-down during the day. At the end of trading a final rinse with dilute hypochlorite solution (150ppm) should be made to reduce bacterial contamination and prevent fishy odours which could attract flies and vermin.

It is recommended that all containers, whether used for storage of waste on the premises or for storage outside, are rinsed clean and disinfected with dilute hypochlorite every time they are emptied.

### **8.2.4 PROCEDURES FOR MOBILE SHOPS AND MARKET STALLS**

***Mobile vans, market stalls and their support and base facilities must be maintained to the same high standards of hygiene as shops.***

***The procedures required will differ for each type of trader and for each type of equipment used. Where relevant the recommendations given for shops must be followed.***



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*Cleanliness of equipment, etc.,*

6.-(1) Articles or equipment with which food comes into contact, or is liable to come into contact, in the course of a food business shall be kept clean and shall be so constructed, be of such materials and be kept in such good order, repair and condition as to-

- a) enable them to be thoroughly cleaned, and
- b) prevent, so far as is reasonably practicable, any matter being absorbed by them and any risk of contamination of the food.

#### **8.2.4.1 SI 1966 No. 791**

#### **The Food Hygiene (Markets, Stalls and Delivery Vehicles) Regulations 1966**

##### **Part II**

*Condition of land, vehicles, etc., used for sale or delivery of food*

5.-(2) Where it is proposed to use any land or market premises or to erect or use any stall for the purpose of sale, storage, exposure for sale or deposit for sale of any food, any person or authority who provides the market or who permits the land to be used or the stall to be erected or used shall take account of the nature and packing of the food which is to be handled; and thereafter-

- a) he shall not permit the land, stall or premises to be used for any of those purposes if they are in such a condition as to expose the food to the risk of contamination or prevent the observance of cleanly practices in handling the food;
- b) he shall ensure that any land used for any of those purposes is kept clean; and
- c) he shall ensure that any stall or premises so used are kept clean and in proper repair.

##### **Part IV**

*Accumulation of refuse, etc.*

20. No refuse or filth, whether solid or liquid, shall be deposited or allowed to accumulate at any stall or in any market on or from which a food business is carried on or on any delivery vehicle, except so far as may be unavoidable for the proper carrying on of the trade or business.

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***It is recommended that cleaning schedules are established to cover daily, weekly and monthly requirements as well as the cleaning at the end of each cycle of operation.***

***A 'clean-as-you-go' policy is recommended for busy areas.***

#### **8.2.4.1 Trading sites**

To avoid causing offence to the public, and any risk to public health, sites must at all times be kept clean and tidy. This is best achieved by not depositing any waste on the site other than in purpose-built storage facilities. Any accidental spillage must be cleaned up and the area washed and then rinsed with dilute hypochlorite solution (150 ppm, half an egg cup of bleach in 2 gallons of water).

#### **8.2.4.2 Base facilities**

For cleaning premises, facilities and equipment the recommendations given for shops in Section 8.2.3 *Procedures for shops* must be complied with.

#### **8.2.4.3 Cleaning vehicles and stalls during the day**

Vehicles and stalls must be kept clean and tidy throughout the day. Any accidental spillage must be cleaned up. Items in constant use such as knives, cutting boards and sinks should be regularly washed with cold water and wiped clean. Other items such as counters, scales and tills should be regularly wiped down with a clean cloth.

#### **8.2.4.4 Cleaning vehicles and stalls at the end of trading**

At the trading site waste should be disposed of if possible and fish transferred from display to chill storage if necessary. Vehicles and stalls should then be tidied and cleaned as far as possible within the scope of the facilities available. Fish residues must be cleaned up and surfaces and utensils washed and wiped clean. Stalls which are fixed in position must be thoroughly cleaned at this point.

Because of the limited facilities generally available on the trading site it will be necessary in most cases to return vehicles and stalls to a base with adequate water supply, drainage and storage facilities to enable thorough cleaning. This must be done by the end of the day before any remaining fish residues harden and off-odours develop.

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**8.3 SI 1970 No. 1172**  
**The Food Hygiene (General) Regulations 1970**

**Part III**

*Personal cleanliness*

10. A person who engages in the handling of food, shall while so engaged—
- a) keep as clean as may be reasonably practicable all parts of his person which are liable to come into contact with the food;
  - b) keep as clean as may be reasonably practicable all parts of his clothing or overclothing which are liable to come into contact with the food;
  - c) keep any open cut or abrasion on any exposed part of his person covered with a suitable waterproof dressing;
  - d) refrain from spitting;
  - e) refrain from the use of tobacco or any other smoking mixture or snuff while he is handling any open food or is in any food room in which there is open food.

**SI 1966 No. 791**  
**The Food Hygiene (Markets, Stalls and Delivery Vehicles) Regulations 1966**

**Part III**

*Personal cleanliness*

8. A person who engages in the handling of food shall while so engaged—
- a) keep as clean as may be reasonably practicable all parts of his person which are liable to come into contact with the food;
  - b) keep as clean as may be reasonably practicable all parts of his clothing or overclothing which are liable to come into contact with the food;
  - c) keep any open cut or abrasion on any exposed part of his person covered with a suitable waterproof dressing;
  - d) refrain from spitting; and
  - e) refrain from the use of tobacco or any other smoking mixture or snuff while he is handling any open food or is in any food room in which there is open food.

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At the base any remaining waste should be disposed of and fish transferred to the base chill store if necessary. Removable items should be stripped from the interior of vehicles, and dismantled stalls and equipment removed from the support vehicle. All surfaces and equipment should be washed with a mildly alkaline detergent followed by disinfection and rinsing with hot water for any surface likely to come into contact with fish. Waste bins should be rinsed and disinfected with dilute hypochlorite solution. Liquid waste containers should be swilled clean and disinfected with dilute hypochlorite solution. Containers used for the storage of fresh water should be emptied at the end of each cycle of operation. To prevent the growth of algae and mould they should be rinsed out every month with dilute hypochlorite solution followed by thorough rinsing.

Whilst empty, vehicles and support vehicles should be cleaned both inside and outside. Interiors should then be wiped dry before replacing the cleaned and dried equipment and stalls. Ventilators should be left open to allow drying to continue.

If cleaned equipment and stalls are not returned to a vehicle they must be stored in a clean, dry and hygienic place.

### **8.3 Personal hygiene**

***Fish must be protected from any contamination by staff or customers. Staff with infectious diseases as defined by legislation must not handle fish. Further precautions are necessary to prevent the bacteria found even on healthy people in the nose, throats, bowels and on the skin from contaminating fish.***

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**8.3.1 SI 1970 No. 1172**  
**The Food Hygiene (General) Regulations 1970**

Part III

*Persons handling open food to wear overclothing, etc.*

11. A person who engages in the handling of open food, other than raw vegetables, intoxicating liquor or soft drinks, shall while so engaged wear sufficient clean and washable overclothing, and every person who carries meat which is open food and which is liable to come into contact with his neck or head shall, while so engaged, also wear a clean and washable neck and head covering:

Provided that this regulation shall not apply—

- a) to waiters in catering businesses;
- b) to any person so long as he is engaged only in the carrying of unskinned rabbits or hares or unplucked game or poultry;
- c) to transport of food—
  - i) by railway undertakers; or
  - ii) in the course of the business of a carrier (other than a railway undertaker) in which the vehicle used for the transport of food is not ordinarily so used;

if in their case the person carrying the food takes all such other precautions as are reasonably practicable to prevent the food from coming into contact with any exposed part of his person or with any clothing other than overclothing.

**SI 1966 No. 791**  
**The Food Hygiene (Markets, Stalls and Delivery Vehicles) Regulations 1966**

Part IV

*Persons handling open food to wear overclothing, etc.*

9. A person who engages in the handling of open food, other than raw vegetables, shall while so engaged wear sufficient clean and washable overclothing, and every person who carries meat which is open food and which is liable to come into contact with his neck or head shall, while so engaged, also wear a clean and washable head covering:

Provided that this regulation shall not apply—

- a) to waiters in catering businesses;
- b) in relation to the transport of food—
  - i) by railway undertakers or
  - ii) in the course of the business of a carrier (other than a railway undertaker) in which the vehicle used for the transport of food is not ordinarily so used;

if in either case the person carrying the food takes all such other precautions as are reasonable and practicable to prevent the food from coming into contact with any exposed part of his person or with any clothing other than overclothing; or

- c) to any person so long as he is engaged only in the carrying of unskinned rabbits or hares or unplucked game or poultry.

**8.3.2 SI 1970 No. 1172**  
**The Food Hygiene (General) Regulations 1970**

Part IV

*Wash-hand basins to be provided*

18.—(1) There shall be provided in all food premises suitable and sufficient wash-hand basins for the use of all persons engaged in the handling of food in or about those premises and such basins shall be placed in a position conveniently accessible to such persons.

(2) There shall be provided for every such wash-hand basin an adequate supply of hot and cold water or of hot water at a suitably controlled temperature, or in the case of food premises where no open food is handled, of cold water.

(3) There shall be provided for use at every such wash-hand basin an adequate supply of soap or other detergent, nail brushes and clean towels or other suitable drying facilities.

(4) Every such wash-hand basin shall be kept clean and in good working condition.

(5) The washing facilities provided under this regulation shall not be used for any purpose other than for securing the personal cleanliness of the user.

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### 8.3.1 PROTECTIVE CLOTHING

***All staff must wear clean and washable protective over-clothing, including coats, aprons and hats or head scarves. When processing fish, a full length apron and rubber boots should be worn.***

Protective clothing protects fish from contamination by dust, dirt, hairs etc., from the handler and in addition prevents everyday clothing becoming soiled and wet.

Rubber or disposable polythene gloves may be worn when handling or serving fish, provided they are kept clean.

### 8.3.2 HAND-WASHING EQUIPMENT

***Every wash-hand basin must be provided with hot and cold water, or hot water only at approximately +40°C, soap, a nail brush and facilities for hand drying.***

***The hand-washing facilities must not be used for any purpose other than maintaining personal cleanliness.***

A liquid or gel-type soap containing a mild disinfectant is recommended.

A nail brush must be provided and it is recommended that staff keep their nails trimmed short.

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**SI 1966 No. 791**

**The Food Hygiene (Markets, Stalls and Delivery Vehicles) Regulations 1966**

**Part IV**

*Wash-hand basin to be provided*

16.-(1) Subject to the provisions of regulation 24 and of any certificate of exemption, there shall be provided at every stall from which a food business is carried on and on every delivery vehicle suitable and sufficient wash-hand basins for the use of all persons engaged in the handling of food on or about the stall or delivery vehicle, and such basins shall be maintained in a position conveniently accessible to those persons.

(2) Subject as aforesaid there shall be provided and maintained for every such wash-hand basin an adequate supply of hot water at a suitably controlled temperature.

(3) At or near every wash-hand basin available for the use of such persons as are mentioned in paragraph (1) of this regulation, there shall be provided and maintained for the use of those persons adequate supplies of soap or other suitable detergent, nail brushes and clean towels or other suitable drying facilities, which shall be used only for securing the personal cleanliness of those persons.

(4) All wash-hand basins so available shall be kept clean and any working parts thereof shall be kept clean and in efficient working order.

**8.3.3**

**SI 1970 No. 1172**

**The Food Hygiene (General) Regulations 1970**

**Part III**

*Personal cleanliness*

10. A person who engages in the handling of food, shall while so engaged-

- a) keep as clean as may be reasonably practicable all parts of his person which are liable to come into contact with the food;
- b) keep as clean as may be reasonably practicable all parts of his clothing or overclothing which are liable to come into contact with the food;
- d) refrain from spitting;
- e) refrain from the use of tobacco or any other smoking mixture or snuff while he is handling any open food or is in any food room in which there is open food.

**SI 1966 No. 791**

**The Food Hygiene (Markets, Stalls and Delivery Vehicles) Regulations 1966**

**Part III**

*Personal cleanliness*

8. A person who engages in the handling of food shall while so engaged-

- a) keep as clean as may be reasonably practicable all parts of his person which are liable to come into contact with the food;
- b) keep as clean as may be reasonably practicable all parts of his clothing or overclothing which are liable to come into contact with the food;
- d) refrain from spitting; and
- e) refrain from the use of tobacco or any other smoking mixture or snuff while he is handling any open food or is in any food room in which there is open food.

**8.3.4**

**SI 1970 No. 1172**

**The Food Hygiene (General) Regulations 1970**

**Part III**

*Persons suffering from certain infections*

13.-(1) Immediately a person engaged in the handling of food becomes aware he is suffering from, or is the carrier of, typhoid, paratyphoid or any other salmonella infection or amoebic or bacillary dysentery or any staphylococcal infection likely to cause food poisoning, he shall inform the person carrying on the food business and that person shall immediately notify the appropriate medical officer of health accordingly.

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Hands should be dried using a hot-air drier, an automatic roller towel or disposable paper towels. The old-fashioned roller towel is unhygienic and must not be used.

### **8.3.3 PERSONAL HABITS**

***All staff must keep clean and wear clean clothing.***

***All staff must wash their hands with plenty of hot soapy water before handling fish and after every visit to the lavatory.***

***Staff must not smoke when handling fish, or in areas where fish is handled. Dirty habits such as spitting, picking the nose, teeth or ears must be prohibited, as should licking the fingers when handling wrapping materials, scratching the head and coughing or sneezing over the fish.***

It is recommended that a notice is prominently displayed outside the retail area prohibiting customers from smoking whilst inside and that the instruction is enforced.

### **8.3.4 FREEDOM FROM INFECTIOUS DISEASES**

***Staff found to be suffering from notifiable diseases must not handle fish or any food and the local medical officer of health must be informed immediately.***

***In addition it is recommended that staff should report bowel disorders, digestive upsets and skin infections to a doctor and do not handle fish until medical clearance has been obtained.***



Provided that where the person required to give such information is himself the person carrying on the food business he shall give the information immediately to the appropriate medical officer of health.

(2) In this regulation—

"appropriate medical officer of health" means—

- a) in the case of a person engaged in the handling of food at or from food premises, the medical officer of health of the district in which the premises are situated; and
- b) in any other case, either the medical officer of health of the district in which the person resides or the medical officer of health of the district in which the food business is situated.

#### **SI 1966 No. 791**

#### **The Food Hygiene (Markets, Stalls and Delivery Vehicles) Regulations 1966**

##### **Part III**

##### *Persons suffering from certain infections*

11.—(1) As soon as a person engaged in the handling of food becomes aware that he is suffering from or is the carrier of typhoid, paratyphoid or any other salmonella infection or dysentery or any staphylococcal infection likely to cause food poisoning, he shall inform the person carrying on the food business; and that person shall immediately notify the appropriate medical officer of health accordingly:

Provided that where the person required to give such information is himself the person carrying on the food business he shall give it to the appropriate medical officer of health immediately.

(2) For the purposes of this regulation, the appropriate medical officer of health is—

- a) in the case of a person engaged in the handling of food at or from market premises, the medical officer of health of the district in which the markets are situated; and
- b) in any other case, either the medical officer of health of the district in which the person resides or the medical officer of health of the district in which the food business is situated.

(3) For the purpose of the last foregoing paragraph, a food business which is carried on from a stall shall be deemed to be situated in the district in which the stall is for the time being standing.

#### **8.3.5**

#### **SI 1970 No. 1172**

#### **The Food Hygiene (General) Regulations 1970**

##### **Part IV**

##### *First-aid materials to be provided*

19. There shall be provided at all food premises a sufficient supply of suitable bandages, dressings (including waterproof dressings) and antiseptic for first-aid treatment of persons engaged in the handling of food in or about those premises and such supply shall be kept in a place readily accessible to those persons.

#### **SI 1966 No. 791**

#### **The Food Hygiene (Markets, Stalls and Delivery Vehicles) Regulations 1966**

##### **Part IV**

##### *First-aid materials to be provided*

17. Subject to the provisions of regulation 24 and of any certificate of exemption, suitable and sufficient bandages, dressings (including waterproof dressings) and antiseptics for first-aid treatment shall be provided and maintained at every stall used in the course of a food business and on every delivery vehicle in a readily accessible position for the use of persons engaged in the handling of food on or about the stall or vehicle.

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Serious risk to public health can result from carriers of infectious diseases handling food, particularly food which may be eaten without the further cooking necessary to make it safe. It is vital that the medical authorities are warned of any potential problem.

### **8.3.5 FIRST AID MATERIALS**

***First aid materials must be kept in a clearly marked box adjacent to a wash-hand basin in an area accessible to all staff. The minimum contents of the first-aid kit are defined in the legal requirements.***

First aid materials must be hygienically stored so that they do not become damp or contaminated and stocks must be replenished after use.

It is recommended that bandages and plasters are brightly coloured so they can be easily spotted if they come off.

St. Johns Ambulance Association and other organisations provide training in basic first aid procedures and this is recommended.

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## Health and Safety (First Aid) Regulations 1981

### Statutory Contents of First Aid Kits

Item	Number of employees				
	1-5	6-10	11-50	51-100	101-150
Guidance card	1	1	1	1	1
Individually wrapped sterile adhesive dressings	10	20	40	40	40
Sterile eye pads, with attachment	1	2	4	6	8
Triangular bandages	1	2	4	6	8
Sterile coverings for serious wounds (where applicable)	1	2	4	6	8
Safety pins	6	6	12	12	12
Medium sized sterile unmedicated dressings	3	6	8	10	12
Large sterile unmedicated dressings	1	2	4	6	10
Extra large sterile unmedicated dressings	1	2	4	6	8

### 8.3.6 SI 1970 No. 1172 The Food Hygiene (General) Regulations 1970

#### Part III

##### *Personal cleanliness*

10. A person who engages in the handling of food, shall while so engaged—
- c) keep any open cut or abrasion on any exposed part of his person covered with a suitable waterproof dressing;

### SI 1966 No. 791 The Food Hygiene (Markets, Stalls and Delivery Vehicles) Regulations 1966

#### Part III

##### *Personal cleanliness*

8. A person who engages in the handling of food shall while so engaged—
- c) keep any open cut or abrasion on any exposed part of his person covered with a suitable waterproof dressing;

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### **8.3.6 CUTS AND ABRASIONS**

***All cuts, abrasions and burns must be immediately washed and covered with a waterproof dressing before handling fish or equipment.***

Finger stalls, or rubber gloves are recommended for giving additional protection to hands.

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## 8.4 Prevention of Damage by Pests Act, 1949

### Part II

#### *Infestation of food*

13.-(1) Subject to the provisions of this section, every person whose business consists of or includes the manufacture, storage, transport or sale of food, shall give to the Minister forthwith notice in writing if it comes to his knowledge that any infestation is present—

- a) in any premises or vehicle, or any equipment belonging to any premises or vehicle, used or likely to be used in the course of that business for the manufacture, storage, transport or sale of food;
- b) in any food manufactured, stored, transported or sold in the course of that business, or in any other goods for the time being in his possession which are in contact or likely to come into contact with food so manufactured, stored, transported or sold.

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## 8.4 Dealing with pests

***All staff must be alert to any evidence of infestation by pests and it is recommended that a responsible member of staff makes a regular inspection to ensure that no infestation by any pests has occurred.***

***If infestation does occur then the local Environmental Health Department must be informed immediately and remedial action taken.***

***Cats, dogs and other domestic animals must not be allowed in premises or on vehicles or stalls.***

Careful attention to design and construction will limit access for many pests and thorough cleaning and hygiene will eliminate the sources of food which provide an attraction, but the consequences of any infestation by insects, rats, mice, birds or other animals are so serious that a regular check is essential.

Many pests are nocturnal or extremely sensitive to sound or light and often it is only the results of infestation, rather than the culprits, that are found. It is recommended that inspections are carried out in the morning before work commences when the evidence of pest activity during the night is most apparent.

Flies are probably the most common insect pest and are responsible for transmitting many infectious diseases. They can multiply extremely rapidly and removal of waste from both inside and outside of premises, vehicles and stalls is the most effective method of control. Within premises ultra-violet devices should be installed as described in Section 6.1.4.4.3 *Insect-killing devices*. The devices should be left on day and night for maximum removal of flying insects and grids and trays cleaned regularly, at weekly intervals, or as required. Tubes should be replaced once a year to maintain peak efficiency.

Other insect pests which can be a danger, especially in older premises, are cockroaches. These insects come out at night and can be difficult to eradicate so treatment is best carried out by a specialist pest control company.

Rats and mice are responsible for transmitting parasites and potentially fatal diseases. Rats and mice can be detected by their droppings and by the gnawing of woodwork (especially around doorways), dry goods and pipework. Treatment is best carried out by a specialist pest control company.

For a food handling business cats are not a suitable deterrent for rats and mice. Cats, dogs and other domestic animals can transmit various diseases and parasites and the presence of animal hairs on fish is unacceptable. It is recommended that a notice is prominently displayed outside the retail area prohibiting customers from bringing their pet animals in and that the instruction is enforced.

# Appendix I

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## Organisations that contributed to the Guidelines

Under the chairmanship of Seafish, and with a scientific adviser from MAFF, Torry Research Station, a panel of representatives from the following companies and organisations developed the Guidelines:

Argyll Stores Ltd.	}	Supermarket members of the British Retailers Association
Tesco Stores Ltd.		
Cross of York	}	Fishmonger and mobile members of the National Federation of Fishmongers
E. Ashton (Fishmongers) Ltd.		
R. W. Sandys		
Macclesfield Fisheries		
Ocean Pride Fisheries*	}	

LACOTS (Local Authorities Co-ordinating Body on Trading Standards)

Institute of Environmental Health Officers

\*Also representing the Grimsby Mobile Fish Retailers' Association

# Appendix II

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## The assessment of freshness

The **simple freshness assessment system** used in the Guidelines is described. It assigns only three levels of freshness, good, medium and poor, based on the assessment by the retailer of the appearance, odour and behaviour of the fish. It is tabulated separately for **finfish**, whole, fillets, chilled and frozen, and for **shellfish**, live, raw, cooked, chilled and frozen, and for **smoked fish**, chilled and frozen. The eating qualities, and where possible the Torry scores, equivalent to the freshness levels are also tabulated.

The limitations of this simple system in accurately predicting the eating qualities of the fish vary with the type of fish and product, and with the experience of the assessor. Certain shellfish, such as live mussels, give little indication of their inner state other than when death occurs. Processes such as freezing, smoking and cooking result in further changes additional to those occurring during chilled storage of the raw material and product, making an overall assessment more difficult. The simple assessment system includes some effects of these processes which are not strictly changes in freshness but which greatly affect the eating quality of the product. When making assessments the effects of these processes can reduce the rating of otherwise good fish. For example fish which does not smell 'off' but which is obviously freezerburnt must be rated as poor quality.

For reference, examples of the **Torry scoring system** are also given. This is a numerical scoring system requiring a panel of persons trained to identify the different spoilage characteristics of each type of fish and product to be assessed. The appearance, texture and odour of raw fish, and the appearance, odour, flavour and texture of cooked fillets are assessed. The examples tabulated are the raw fish and cooked fillet scoring systems for iced cod, and the cold storage deterioration scoring system for frozen cod.



### Simple freshness assessment system for finfish

FRESHNESS	CHILLED FISH		CHARACTERISTICS OF FROZEN FISH	EQUIVALENT EATING QUALITIES AND TORRY SCORES
	CHARACTERISTICS OF WHOLE FISH	CHARACTERISTICS OF FILLETS		
Good (desirable)	<p>Appearance: eyes bright and bulging, gills dark red or pink, skin colours distinct with 'fresh', bloom, blood bright red.</p> <p>Texture: flesh firm and elastic to the touch.</p> <p>Gill odour: 'fresh' and seaweedy.</p>	<p>Appearance: flesh translucent, skin colours distinct with 'fresh' bloom, no gaping or discoloration.</p> <p>Odour: 'fresh' and seaweedy.</p>	<p>Frozen appearance: no freezer burn or ice crystals on surface. Thawed appearance: similar to chilled fish but blood darker, eye pupils white, flesh not translucent.</p> <p>Thawed texture and odour: similar to chilled fish.</p> <p>Drip: negligible release of drip on thawing.</p>	<p>Sweet flavours characteristic of species.</p> <p>Torry freshness score (white fish) of 8 and above.</p>
Medium (acceptable)	<p>Appearance: eyes starting to sink, gills losing colour, skin colours fading and lost bloom, blood lost brightness and losing redness.</p> <p>Texture: flesh feels softer and less elastic.</p> <p>Gill odour: neutral or even slightly stale, fatty fish may have slightly 'off-oil' odours.</p>	<p>Appearance: flesh dull, skin colours fading and lost bloom.</p> <p>Odour: neutral or slightly stale, fatty fish may have slightly 'off-oil' odours.</p>	<p>Frozen appearance: could have slight freezer burn and a few ice crystals on surface. Thawed appearance: similar to chilled fish but eye pupils white.</p> <p>Thawed texture and odour: similar to chilled fish.</p> <p>Drip: could have noticeable drip on thawing.</p>	<p>Neutral flavours.</p> <p>Cold storage flavour just detectable.</p> <p>Torry freshness score (white fish) less than 8 and down to 6.</p>
Poor (unacceptable)	<p>Appearance: eyes sunken, gills discoloured, skin lost colour and looks bleached, discoloured slime, blood brown.</p> <p>Texture: scales easily rubbed off, flesh soft and inelastic (finger indentations remain).</p> <p>Gill odour: sour, putrid, 'off' (e.g. like rotting vegetables), fatty fish smell rancid.</p>	<p>Appearance: flesh discoloured especially around belly flaps, skin lost colour and looks bleached.</p> <p>Odour: sour, putrid 'off', fatty fish smell rancid.</p>	<p>Frozen appearance: obvious freezer burn with large quantities of ice crystals on surface. Thawed appearance: similar to chilled fish but may have yellow discoloration, eye pupils white.</p> <p>Thawed texture and odour: similar to chilled fish.</p> <p>Drip: copious quantities of drip on thawing.</p>	<p>Sour, bitter, rancid flavours.</p> <p>Well developed cold storage flavour, texture tough and dry from cold storage.</p> <p>Torry freshness score (white fish) less than 6, cold storage flavour more than 3, firmness more than 4.5, dryness more than 3.</p>

### Simple freshness assessment system for shellfish

FRESHNESS	CHARACTERISTICS OF LIVE SHELLFISH	CHILLED		CHARACTERISTICS OF FROZEN SHELLFISH	EQUIVALENT EATING QUALITIES
		CHARACTERISTICS OF RAW SHELLFISH	CHARACTERISTICS OF COOKED SHELLFISH		
Good (desirable)	Behaviour: Crustacea active or respond rapidly when touched. Bivalve molluscs tightly shut when out of water.  Odour: 'fresh' and seaweedy.	Appearance: natural, 'fresh' colours, flesh translucent.  Texture: flesh firm and elastic.  Odour: 'fresh' and seaweedy.	Appearance: natural, 'fresh' colours.    Odour: 'fresh' and seaweedy.	Frozen appearance: no freezer burn or ice crystals on surface. Thawed appearance: similar to chilled fish but flesh not translucent.  Thawed texture and odour: similar to chilled fish.  Drip: negligible release of drip on thawing.	Sweet flavours characteristic of species.
Medium (acceptable)	Behaviour: Crustacea have low level of activity, respond slowly when touched. Bivalve molluscs tightly shut when out of water.  Odour: stale seaweed.	Appearance: some loss of colour, flesh dull.  Texture: flesh less firm and elastic.  Odour: stale seaweed.	Appearance: some loss of colour.    Odour: stale seaweed.	Frozen appearance: could have some freezer burn and a few ice crystals on surface. Thawed appearance: similar to chilled fish.  Thawed texture and odour: similar to chilled fish.  Drip: could have noticeable drip on thawing.	Neutral flavours, cold storage flavour just detectable.
Poor (unacceptable)	Behaviour: Crustacea inactive, apparently undamaged dead fish in batch. Bivalve molluscs gaping when out of water.  Odour: sour, putrid, 'off'.	Appearance: blackening of shell-on products, flesh discoloured.  Texture: flesh soft and inelastic.  Odour: sour, putrid, 'off'.	Appearance: blackening of shell-on products, flesh discoloured.    Odour: sour, putrid, rancid, 'off'.	Frozen appearance: obvious freezer burn with large quantities of ice crystals on surface. Thawed appearance: similar to chilled fish but may have yellow discolouration.  Thawed texture and odour: similar to chilled fish but may smell rancid.  Drip: copious quantities of drip on thawing.	Sour, bitter rancid or rancid flavours.  Well developed cold storage flavour, texture tough and dry from cold storage.

## Simple freshness assessment system for smoked fish

FRESHNESS	CHARACTERISTICS OF CHILLED FISH	CHARACTERISTICS OF FROZEN FISH	EQUIVALENT EATING QUALITIES
Good (desirable)	<p>Appearance: no gaping or discoloration, cold smoked fillets glossy.</p> <p>Texture: cold smoked fish firm and elastic.</p> <p>Odour: 'fresh' smoky.</p>	<p>Frozen appearance: no freezer burn or ice crystals on surface. Thawed appearance: similar to chilled fish.</p> <p>Thawed texture &amp; odour: similar to chilled fish.</p> <p>Drip: negligible release of drip on thawing.</p>	<p>Mild, fresh, smoky flavours and sweet flavours characteristic of species, not strongly salty.</p>
Medium (acceptable)	<p>Appearance: Cold smoked fillets less glossy.</p> <p>Texture: cold smoked fish less firm and elastic.</p> <p>Odour: slightly stale.</p>	<p>Frozen appearance: could have some freezer burn and a few ice crystals on surface. Thawed appearance: similar to chilled fish.</p> <p>Thawed texture &amp; odour: similar to chilled fish.</p> <p>Drip: noticeable release of drip on thawing.</p>	<p>Mild smoky flavours, not strongly salty.</p> <p>Cold storage flavour just detectable.</p>
Poor (unacceptable)	<p>Appearance: cold smoked fillets with no gloss. Gaping of fillets. Discoloration.</p> <p>Texture: cold smoked fish, soft and inelastic.</p> <p>Odour: stale, sour, rancid or putrid.</p>	<p>Frozen appearance: obvious freezer burn with large quantities of ice crystals on surface. Thawed appearance: similar to chilled fish.</p> <p>Thawed texture &amp; odour: similar to chilled fish.</p> <p>Drip: copious quantities of drip released on thawing.</p>	<p>Sour, bitter, rancid, acrid, resinous, musty or strong salty flavours.</p> <p>Well developed cold storage flavour and texture tough and dry from cold storage.</p>

### Torry freshness scoring system for iced cod – raw fish

SCORE	EYES	SKIN	TEXTURE AND EFFECT OF RIGOR MORTIS	FLESH AND BELLY FLAPS	KIDNEY AND BLOOD	GILLS		SCORE
						APPEARANCE	ODOUR	
10	Bulging, convex lens, black pupil, crystal-clear cornea.	Bright well-differentiated colours, glossy, transparent slime.	Flesh firm and elastic. Body pre-rigor or in rigor.	Cut surface stained with blood. Bluish translucency around backbone. Fillet may have rough appearance due to rigor mortis contraction.	Bright red, blood flows readily.	Glossy, bright red or pink, clear mucus.	Initially very little odour increasing to sharp, iodine, starchy, metallic odours, changing to less sharp seaweedy shellfish odours.	10
9	Convex lens, black pupil with slight loss of initial clarity.		Flesh firm and elastic. Muscle blocks apparent. In or just passing through rigor.	White with bluish translucency, may be corrugated due to rigor mortis effect.	Bright red, blood does not flow.			9
8	Slight flattening or plane, loss of brilliance.	Loss of brilliance of colour.	Firm, elastic to the touch.	White flesh with some loss of bluish translucency. Slight yellowing of cut surface of belly flaps.	Slight loss of brightness of blood.	Loss of gloss and brightness, slight loss of colour.	Freshly cut grass. Seaweedy and shellfish odours just detectable.	8
7							Slight mousy, musty milky or caprylic.	7
6	Slightly sunken, slightly grey pupil, slight opalescence of cornea.	Loss of differentiation and general fading of colours. Overall greyness. Opaque and somewhat milky slime.	Softening of the flesh, finger indentations retained, some grittiness near tail.	Waxy appearance of the flesh, reddening around the kidney region. Cut surfaces of the belly flaps brown and discoloured.	Loss of brightness, some browning.	Some discoloration of the gills and cloudiness of the mucus.	Bready, malty, beery, yeasty.	6
5							Lactic acid, sour milk or oily.	5
4	Sunken, milky white pupil, opaque cornea.	Further loss of skin colour. Thick yellow knotted slime with bacterial discoloration. Wrinkling of skin on nose.	Softer flesh, definite grittiness.	Some opacity, reddening along backbone and brown discoloration of the belly flaps.	Brownish kidney blood.	Slight bleaching and brown discoloration with some yellow bacterial mucus.	Lower fatty acid odours (eg acetic or butyric acids), composted grass, 'old boots', slightly sweet, fruity or chloroform-like.	4
3							Stale cabbage water, stale turnips, 'sour sink', wet matches.	3

### Torry freshness scoring system for iced cod - cooked fillet

SCORE	ODOUR	FLAVOUR	TEXTURE, MOUTH FEEL AND APPEARANCE	SCORE
10	Initially weak odour of sweet, boiled milk, starchy followed by strengthening of these odours.	Watery, metallic, starchy Initially no sweetness but meaty flavours with slight sweetness may develop.	Dry, crumbly with short tough fibres.	10
9	Shellfish, seaweed, boiled meat, raw green plant.	Sweet, meaty, creamy green plant, characteristic.	Succulent, fibrous. Initially firm going softer with storage. Appearance originally white and opaque going yellowish and waxy on storage.	9
8	Loss of odour, neutral odour.	Sweet and characteristic flavours but reduced in intensity.		8
7	Wood shavings, woodsap, vanillin.	Neutral.		7
6	Condensed milk, caramel toffee-like.	Inspid.		6
5	Milk jug odours, boiled potato, boiled clothes-like.	Slight sourness, trace of 'off' flavours.		5
4	Lactic acid, sour milk, 'byre-like'.	Slight bitterness, sour, 'off' flavours.		4
3	Lower fatty acids (eg acetic or butyric acids), composted grass, soapy, turnipy, tallowy.	Strong bitter, rubber, slight sulphide.		3

### Torry scoring system for cold storage deterioration of frozen cod - thawed and cooked fillet

COLD STORE FLAVOUR	TEXTURE	
	FIRMNESS	DRYNESS
0 Absent	0 Very soft	0 Sloppy, watery
1 Very slight	1 Softer than normal	1 Juicy, normal (normal fresh unfrozen North Sea Cod)
2 Slight	2 Firm (normal 2-5 days iced unfrozen fish)	2 Slightly dry
3 Moderate	3 Slightly firmer than normal	3 Dry
4 Strong	4 Slightly tough	4 Extremely dry
5 Very strong	5 Tough	
	6 Extremely tough	

# Appendix III

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## **Fish classification, names, characteristics and products**

Most of the common fish landed in the UK must be labelled with a name specified by law. These names are tabulated together with the Latin names used to identify species. Some comments are made on the important characteristics of these fish, and if there is a minimum size below which the fish must not be sold according to EEC law this is also tabulated.

A wide range of exotic species are now imported from tropical areas. The warmer waters of these areas produce a vast range of fish varieties and species. Sometimes the same name is used for dissimilar species of fish imported from different countries. The few of these species which have names specified by law are tabulated. If there is no legally specified name the retailer should label the fish with the customary name for the species.

Also tabulated are some of the more common fish products sold by retailers together with a brief description.

## Types of fish and their names

Permitted Name and Alternatives	Species	Comments	Minimum Permitted Size (cm)
<b>FIN FISH</b>			
<b>White fish – round</b>			
Bass	<i>Dicentrarchus labrax</i>	Should be handled as for salmon	32
Catfish Rockfish	All species of <i>Anarhichas</i>	An impressive fish useful on display. Good firm flesh	
Cod Codling (small fish)	<i>Gadus morhua</i> (including <i>G. morhua callarias</i> and <i>G. callarias callarias</i> )	The most common UK fish, sold whole, filleted or as steaks	35
Coley Saithe, coalfish	<i>Pollachius virens</i>	A dark fleshed fish more oily than cod	35
Conger	All species of <i>Conger</i>	An impressive fish, often used as the centre of a display	58
Dory John Dory	<i>Zeus faber</i>	An unusual fish with compressed body and large black spot	
Grey mullet	All species of <i>Mugil</i> , <i>Liza</i> and <i>Chelon</i>	Includes imported mullet	20
Gurnard	<i>Peristedion cataphractum</i> . All genera of <i>Triglidae</i>	May be grey or red. Large head, firm flesh	
Haddock	<i>Melanogrammus aeglefinus</i>	Distinctive fish with black line on side. Stronger flavour than cod	30
Hake Silver hake	<i>Merluccius merluccius</i>	Soft fleshed fish which must be handled with care	30
Cape hake Hake	<i>Merluccius capensis</i> or <i>Merluccius paradoxus</i>	These hake are imported frozen. Check they are not rancid or full of parasites	
Atlantic hake Hake	<i>Merluccius hubbsi</i> or <i>Merluccius bilinearis</i>	"	
Pacific hake Hake	<i>Merluccius productus</i> <i>Merluccius gayi</i>	"	
Ling	All species of <i>Molva</i>	Should be handled as for cod	
Monkfish Angler	<i>Lophius piscatorius</i>	Generally only the tails are sold, which are firm and meaty. Whole fish are grotesque with an impressive mouth	
Pollack Pollack, lythe	<i>Pollachius pollachius</i>	Should be handled as cod	30
Pacific Pollack Pacific pollock Alaska pollack Alaska pollock	<i>Theragra chalcogramma</i>	Imported frozen. Of poorer eating quality than pollack	
Pout Pouting	<i>Trisopterus luscus</i>	A bony fish which spoils rapidly	
Redfish Ocean perch, Rose fish	All species of <i>Sebastes</i> <i>Helicolenus maculatus</i> <i>Helicolenus dactylopterus</i>	Meaty firm, flesh, but contains oil which becomes rancid	
Red mullet	All species of <i>Mullus</i>	The UK mullet, not to be confused with imported species	15

## Types of fish and their names (contd.)

Permitted Name and Alternatives	Species	Comments	Permitted Minimum Size (cm)
Sea bream	All species of <i>Sparidae</i>	A good quality fish, slightly oily	
Smelt Sparling	All species of <i>Osmerus</i>	Smells of cucumbers	
Tusk	<i>Brosme brosme</i>	Slightly more oily than cod so can become rancid	
Whiting	<i>Merlangius merlangus</i>	A small fish which soon loses its sweet flavours	27
Blue whiting	<i>Micromesistius poutassou</i>	An as yet unexploited fish, smaller than whiting but good eating	
<b>White fish – flat</b>			
Brill	<i>Scophthalmus rhombus</i>	A flat fish similar to turbot, but has scales and no tubercles	30
Dab	<i>Limanda limanda</i>	Small flat fish, usually at their best from autumn to spring	15
Flounder	<i>Platichthys flesus</i>	A flat-fish, considered inferior to plaice	25
Halibut	<i>Hippoglossus hippoglossus</i> or <i>Hippoglossus stenolepis</i>	A firm fleshed flat fish with good keeping quality	
Greenland halibut Black halibut	<i>Reinhardtius hippoglossoides</i>	Darker fleshed than true halibut. Texture is also softer	
Megrim	All species of <i>Lepidorhombus</i>	Lacks some of the desirable flavour and texture of other flat fish	25
Plaice	<i>Pleuronectes platessa</i>	A flat fish with good keeping qualities	25
Roughback	<i>Hippoglossoides platessoides</i>	A flat fish which should be treated like flounders	
Sole Dover sole	<i>Solea solea</i>	A delicate flavoured flat fish in great demand. Keeps well	24
Lemon sole	<i>Microstomus kitt</i>	An alternative to Dover sole, but not of the same standard	25
Turbot	<i>Scophthalmus maximus</i>	A highly prized flat fish which keeps well	30
Witch	<i>Glyptocephalus cynoglossus</i>	A thin bodied flat fish	
<b>White fish – cartilaginous</b>			
Dogfish Hake, Huss, Rigg	<i>Squalus acanthias</i> , <i>Galeus melastomus</i> . All species of <i>Galeorhinus</i> , <i>Mustelus</i> and <i>Scyliorhinus</i>	Non-boney fish which rapidly smell of ammonia. Keep away from white fish	
Skate Ray, Roker	All species of <i>Raja</i>	As with dogfish the smell of ammonia rapidly develops, and also a thick slime. Keep away from white fish	
<b>OILY FISH</b>			
Eel	All species of <i>Anguilla</i>	Can survive for long periods out of water. Very high oil content. Popular in certain regions, sold live, jellied or smoked	



## Types of fish and their names (contd.)

Permitted Name and Alternatives	Species	Comments	Minimum Permitted Size (cm)
Herring	<i>Clupea harengus</i>	Landed with the guts in, very perishable, oil content varies but excellent eating when fresh	20
Mackerel	All species of <i>Scomber</i>	Oil content varies seasonally. Must be kept below 4°C to prevent danger of toxin development	30 (North Sea only)
Pilchard (called sardine when young)	<i>Sardina pilchardus</i>	Traditionally sold in cans, but excellent when fresh	
Pacific pilchard	<i>Sardinops sagax caerulea</i> <i>Sardinops sagax sagax</i> <i>Sardinops sagax melanosticta</i>	Imported as frozen fish. Check for rancidity	
South Atlantic pilchard	<i>Sardinops sagax ocellata</i>	"	
Sardine (called pilchard when adult)	Small <i>Sardina pilchardus</i>	Traditionally sold in cans, but excellent when fresh	
Sardinella	All species of <i>Sardinella</i>		
Scad	All species of <i>Trachurus</i>	Good flavoured fish with boney scales down the sides	
Sprat	<i>Sprattus sprattus</i>	A seasonal fish at its best from autumn to spring	
Tuna Tunny	All species of <i>Thunnus</i> except <i>T. alalunga</i> . All species of <i>Neothunnus</i>	May be bought fresh, or frozen	
Albacore tuna	<i>Thunnus alalunga</i>	Usually imported frozen into the UK, check they have not turned rancid	
Bonito tuna	All species of <i>Sarda</i>	"	
Skipjack tuna	All species of <i>Euthynnus</i> , <i>Katsuwonus pelamis</i>	"	
Whitebait	Small <i>Clupea harengus</i> Small <i>Sprattus sprattus</i>	Available early spring and summer. Very perishable	

### SALMON AND FRESH WATER FISH

Salmon	<i>Salmo salar</i>	May be farmed or wild. Usually best early spring and summer. Must be kept well iced.	
Cherry salmon	<i>Oncorhynchus masco</i>	Usually imported frozen. Check for rancidity and species – to ensure correct label	
Chum salmon Keta salmon	<i>Oncorhynchus keta</i>	"	
Medium red salmon Coho salmon, Silver salmon	<i>Oncorhynchus kisutch</i>	"	

## Types of fish and their names (contd.)

Permitted Name and Alternatives	Species	Comments	Minimum Permitted Size (cm)
Pink salmon	<i>Onchorhynchus gorbushca</i>	Usually imported frozen. Check for rancidity and species – to ensure correct label	
Red salmon Sockeye salmon	<i>Oncorhynchus nerka</i>	"	
Spring salmon King salmon Chinook salmon	<i>Oncorhynchus tshawytscha</i>	"	
Brown trout	<i>Salmo trutta</i> which has spent all its life in fresh water	Should be treated as salmon	
Sea trout Salmon trout	<i>Salmo trutta</i> which has spent part of its life in seawater	"	
Cut-throat trout	<i>Salmo clarkii</i>	May be imported frozen, check for rancidity	
Rainbow trout Steelhead trout	<i>Salmo gairdneri</i>	A farmed fish usually displayed with guts in. Treat as for oily fish and check for rancidity	

## SHELLFISH

### Crustacea

Crab	All species of the section <i>Brachyura</i> All species of the family <i>Lithodidae</i>	Includes common brown crab, boiled, then sold whole or as picked meats. Handle hygienically to reduce health risks. Do not sell berried or soft shelled crabs	
Crawfish Spring lobster Rock lobster	All species of the family <i>Palinuridae</i>		
Crayfish	All species of the families <i>Astacidae</i> , <i>Parastacidae</i> , <i>Austroastacidae</i>	The term crayfish properly refers to the fresh water species	
Lobster	All species of <i>Homarus</i>	Best kept live in well-aerated tanks of seawater	24cm overall 85mm carapace
Slipper lobster	All species of <i>Scyllaridae</i>		
Squat lobster	All species of the family <i>Galatheididae</i>		
Prawn Shrimp	Whole fish of all species of <i>Palaemonidae</i> , <i>Penaeidae</i> and <i>Pandalidae</i> which are of such a size that when cooked they have a count of less than 397 per kg (180 per lb), or the tails of those species which are of such a size that when peeled and cooked, they have a count of less than 1323 per kg (600 per lb)	Imported frozen prawns must come from a reputable supplier to ensure they are safe to eat	

## Types of fish and their names (contd.)

Permitted Name and Alternatives	Species	Comments	Permitted Minimum Size (cm)
Shrimp	Whole fish of all species of <i>Palaemonidae</i> , <i>Penaeidae</i> and <i>Pandalidae</i> which are of such a size that when cooked they have a count of 397 per kg (180 per lb), or more, or the tails of those species which are of such a size that when peeled and cooked, they have a count of 1323 per kg (600 per lb) or more	Usually cooked at sea, may then be peeled. Very perishable	
Shrimp Pink shrimp	<i>Pandalus montagui</i>	Usually cooked at sea, may then be peeled	
Shrimp Brown shrimp	All species of <i>Crangon</i>	Very perishable	
Scampi Norway lobster Dublin Bay prawn	<i>Nephrops norvegicus</i>	Sold whole or as tails	Overall : 85mm Carapace : 25mm Tails : 46mm
<b>Molluscs</b>			
Cockle	All species of <i>Cerastoderma</i>	Must come from a reputable supplier and be kept cool and moist. Usually sold cooked	
Mussel	All species of <i>Mytilus</i>	To ensure they are safe they must come from an approved area or subjected to purification. Keep live mussels cool and moist and discard any dead or moribund specimens. May be sold live or cooked	
Oyster	All species of <i>Crassostrea</i> and <i>Ostrea</i>	If sold live they must be treated as for mussels	
Oyster Portuguese oyster	<i>Crassostrea angulata</i>	"	
Oyster Pacific oyster	<i>Crassostrea gigas</i>	"	
Oyster Native oyster	<i>Ostrea edulis</i>	"	
Scallop	All species of <i>Pectinidae</i>	Shucked meats should be kept in ice	
Scallop Queen scallop	<i>Chlamys (Acquipteron) opercularis</i>	Smaller than <i>Pectinidae</i>	
Whelk	All species of <i>Buccinum</i>	Best in summer. Cook within a few hours of catching. Rubbery texture	
Winkle	All species of <i>Littorina</i>	Soon turn sour so process by boiling after gathering	
<b>Cephalopods</b>			
Squid Calamari, Ink fish	All species of <i>Loligo</i> , <i>Alloteuthis</i> , <i>Illex</i> , <i>Todarodes</i> and <i>Todaropsis</i>	Fresh squid should be kept in ice. Rubbery texture, good flavour	

## Products

Common Name	Species Used	Description
Arbroath Smokie Smokie	Haddock	Small haddocks gutted and headed then hot smoked.
Bismark Herring	Herring	Block fillets or headed or gutted whole herring marinated in acidified brine then packed with onions, cucumbers, carrots, spices and sugar. Will keep several months in a chill.
Bloater	Herring	Large fat salted herring, usually whole ungutted, generally cold smoked.
Bombay Duck	<i>Harpodon</i> sp.	Imported produce made from split, dried and boned fish. Very strong flavour.
Buckling	Herring	Large fat herring, sometimes nobbed or headed, lightly salted then hot smoked.
Caviar	Sturgeon	Sturgeon eggs carefully washed and salted. May be pasteurised to extend shelf life.
Caviar Substitutes	Various	Eggs from cod, coley, bream, lumpsucker, carp, herring have been used to make a caviar-like product.
Dried Fish	Various	Fish, whole or split, preserved by drying to a water content of less than 25% to prevent growth of bacteria or moulds. Store in a cool, dry place.
Dried, Salted Fish Klipfish	Various	Fish preserved by combination of salting and drying, usually white fish. Store in a cool, dry place.
Finnan Haddock	Haddock	Gutted and headed haddock, split, then lightly salted and cold smoked, not dyed.
Fish Cakes	Various	Must contain a minimum of 35% by weight of fish. Very perishable so keep chilled.
Gravlax	Salmon	Sides of salmon rubbed with a mixture of coarse salt, sugar and white pepper then pressed against the herb dill overnight in a chill. To be eaten within 24 hours.
Golden Cutlets	Haddock Whiting	Block cut fillets lightly salted and cold smoked. May be dyed.
Kippers	Herring	Herring split down the backbone, lightly brined and cold smoked. Boneless kippers can be made from herring. May be dyed.
Marinades	Various, but especially herring	Fish cured in acidified brine with or without spices. After curing may be packed in acidified brine with spices, vegetables or various sauces. Eaten without cooking and must be stored chilled. Bismark herring and rollmops are marinated products.
Matje Herring	Herring	Young fat herring gutted and stored in barrels in brine. Often used for further processing e.g. marinades, tid bits.
Pickled Herring	Herring	Gutted herring cured in barrels with salt.
Milt	Various	Gonads from male fish, particularly herring, mackerel etc.
Red Herring	Herring	Whole ungutted heavily salted herring cold smoked over a period of 2 to 3 weeks.

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## Products (contd.)

Common Name	Species Used	Description
Roe	Various	Eggs from female fish, marketed in various ways, including caviar.
Roll Mops	Herring	Marinated fillets of herring wrapped round pieces of onion, then packed in brine with vinegar and spices and flavourings. Preservatives may be added to extend shelf life.
Salt Fish	Various	Fish preserved or cured with dry salt or brine. May be dried afterwards, usually white fish. Store in a cool, dry place.
Soused Herring	Herring	Fillets of herring pickled with salt, vinegar and spices, usually rolled then baked in oven. May be sprayed with kipper dye to give colour. Perishable, keep chilled before and after cooking.
Spiced Herring	Herring	Herring cured with salt together with spices and sugar.
Stock Fish	Various	Gutted headed fish which may be split, then dried in the open air, usually white fish such as cod, coley, haddock or hake. Store in a cool, dry place.

# Appendix IV

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## Bibliography – further reading for the fish retailer

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- 5      **A Guide to Improving Food Hygiene.** Aston, G. and Tiffney, J., Northwood Publications Ltd., London.
- 6      **Guidelines for the Handling of Fish Packed in a Controlled Atmosphere.** Sea Fish Industry Authority, Edinburgh.
- 7      **Commercial and Light Industrial Refrigeration: Guide to Good Practice.** Heating and Ventilating Contractors' Association, HVCA Publications, Penrith, Cumbria.
- 8      **Guidelines for the Handling of Chilled Foods.** IFST, London.
- 9      **BS4259:1968 Recommendations on Cleaning in the Fish Industry.** British Standards Institute.
- 10     **BS5283:1976 Glossary of Terms Relating to Disinfectants.** British Standards Institute.
- 11     **BS6148:1981 Part 3 Methods of Test for Commercial Refrigerated Cabinets.** British Standards Institute.
- 12     **BS3053:1983 Commercial Refrigerated Cabinets for the Sale and/or Display of Food Products.** British Standards Institute.
- 13     **Testing of Food Temperatures in Retail Establishments.** British Refrigeration Association, Maidenhead, Berks.
- 14     **Hygiene in the Retail Fish Trade. Food Hygiene Codes of Practice No. 3.** HMSO, London. (out of print).
- 15     **The Hygienic Transport and Handling of Fish. Food Hygiene Codes of Practice No. 4.** HMSO, London. (out of print).
- 16     **Collins Guide to the Sea Fishes of Britain and North-Western Europe.** B.J. Muus, Collins, London.

# Appendix V

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## Temperature surveys

Periodic temperature surveys carried out by the retailer provide a true measure of the effectiveness of the facilities and procedures used for controlling fish temperature. The information gained will surprise many retailers and provides a sound, factual basis for the management and development of the business to achieve high quality standards.

Temperatures should be measured as fish passes through each operation from reception through to retail display. The temperatures of the fish and of the surrounding air, water or equipment should all be measured together with the ambient temperatures and tap water temperatures. The measurements should all be recorded in a standard fashion on a log sheet so that comparison of survey results will indicate any problems developing or the effectiveness of any improvements.

The details of the survey and the log sheet will vary according to the nature of the business depending upon the sequence of events and the facilities and procedures employed. A model log sheet is given but retailers should adapt this to suit their particular business. The following notes should assist in carrying out surveys:

Mobile or market stall traders whose cycle of operation spans several days must extend the survey to cover the full period.

Both chilled and frozen fish temperatures must be recorded on reception.

It is important that temperatures are recorded throughout all areas of storage and display facilities to indicate temperature variations. Air temperatures must be measured throughout, even if the facilities are not full of fish.

To enable comparison of results it is important that the location of measurements is recorded e.g. top left back corner of chill store.

It is recommended that the temperature of the fish in the centre of each box or pile is recorded.

Sample temperatures in chill storage of unprocessed fish and any fish which has been prepared for display should be recorded.

Temperatures should be measured in stable conditions i.e. refrigeration plant should not be defrosting, doors should be shut, tap water should be run for a few seconds, etc.

If specialist processing is carried out the log sheet will have to be adapted so that the critical temperatures of each type of process are recorded.

When measuring air temperatures on display slabs it is recommended that the probe is held about 5cm above the fish.

Comments should include any relevant information e.g. fish not iced, door not shutting properly, sun shining on display, strong wind blowing, etc.

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## Example of periodic temperature survey log sheet

### IDENTIFICATION DETAILS

Name/Address of business	
Date of Survey	
Name of person carrying out survey	
General weather conditions during survey	

### FISH RECEPTION AREA

Approximate time when temps. measured	
Ambient air temp. outside premises °C	
Ambient temp. in centre of reception area °C	

	Type of product	Sample temps. °C			
Temps. of each type of product received					

Comments:



## PROCESSING AREA

Approximate time when temps. measured	
Ambient air temp. outside premises °C	
Ambient temp. in centre of processing area °C	

Water temp.	Sink or tap location	Hot temp.°C	Cold temp.°C

Basic fish processing (e.g. filleting/steaking):

Sample temps. of fish awaiting processing °C				
Sample temps. of fish awaiting storage/display °C				
Temperature of fish washing water °C				

Specialist fish processing (e.g. smoking/shellfish boiling):

Type of process					
Sample fish temps. during processing	Fish awaiting processing				
	Process stages	(I)			
		(II)			
		(III)			
Process air/water equipment temps.	Fish awaiting storage/display				
	Item	(I)			
		(II)			
		(III)			

Comments:

## STORAGE AREA

Approximate time when temps. measured	
Ambient air temp. outside premises °C	
Ambient temp. in centre of storage area °C	

Chill store and air temps.	Wet fish			Smoked/cooked/live fish		
	Location	Fish Temp. °C	Air Temp. °C	Location/product	Fish Temp. °C	Air Temp. °C
Thermostat setting			Reading on temp. dial			

Frozen store fish and air temps.	Location	Fish Temp. °C	Air Temp. °C
Thermostat setting		Reading on temp. dial	

Comments:

## RETAIL AREA

Approximate time when temps. measured	
Ambient air temp. outside premises °C	
Ambient temp. in centre of retail area °C	

Water temp.	Sink or tap location	Hot temp.°C	Cold temp.°C

Iced slab fish and air temps.	Wet fish			Smoked/cooked/live fish		
	Location	Fish Temp.°C	Air Temp.°C	Location/product	Fish Temp.°C	Air Temp.°C

Refrig. cabinet fish and air temps.	Wet fish			Smoked/cooked/live fish		
	Location	Fish Temp.°C	Air Temp.°C	Location/product	Fish Temp.°C	Air Temp.°C
Thermostat setting				Reading on temp. dial		

<b>Frozen cabinet fish and air temps.</b>	<b>Location</b>	<b>Fish Temp. °C</b>	<b>Air Temp. °C</b>
<b>Thermostat setting</b>		<b>Reading on temp. dial</b>	

**Comments:**