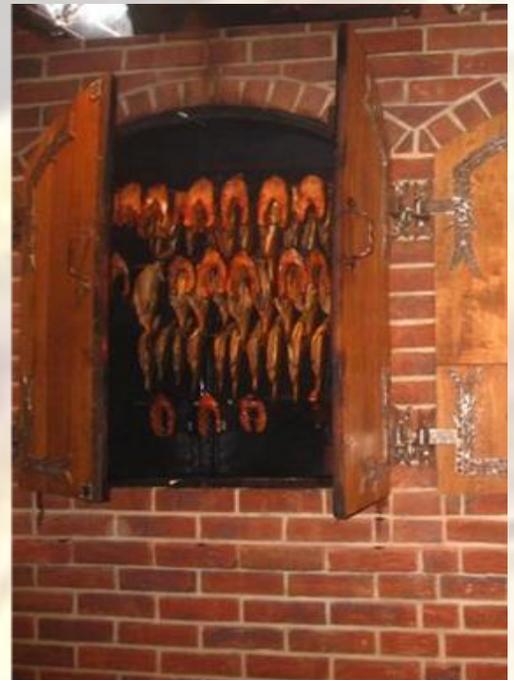




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***Guide for persons conducting audits at  
small fish smokehouses***

November 2013

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## 1. Introduction

Veterinary and sanitary requirements for establishments manufacturing products of animal origin are defined at the EU level in regulations of food law and are the same for plants in all the Member States.

The requirements specified in these regulations have been formulated in a flexible way, so that they can be fulfilled by large establishments as well as by small "family businesses" that produce their goods for a local market of a given member state. The terms used in these regulations such as *if necessary*, *appropriate*, and *sufficient* indicate that the implementation of the requirements at a particular establishment in a manner appropriate and sufficient to ensure a high level of consumer health protection rest on the persons responsible for the establishment. It should be noted, however, that the supervision of compliance with the aforementioned requirements is the responsibility of the official inspection authorities.

### 1.1 Purpose

We want this guidance to provide advice and support to the inspectors who try cases concerning the approval and registration of smokeries. The goal is to make a single junction provide information on regulations of operational control. This creates the conditions for a control that is characterized by high efficiency and good quality. The guidance also aims to contribute to the equal application of the laws of the countries of the South Baltic Programme.



### 1.2 Definitions

**Primary products:** (Article 2 to Regulation (EC) no 852/2004) means products of primary production including products of the soil, of stock farming, of hunting and fishing.

**Prepared fishery products:** (paragraph 3.6 of Annex I to Regulation (EC) No 853/2004). Unprocessed fishery products that have undergone an operation affecting the whole, such as gutting, heading, slicing, filleting, and chopping.

**Fresh fishery products:** (paragraph 3.5 of Annex I to Regulation (EC) No 853/2004). Unprocessed fishery products, whether whole or prepared, including products packaged

under vacuum or modified atmosphere and which have not undergone any treatment other than cold treatment to ensure sustainability.

**Potable water:** (Article 2.1. g Regulation (EC) No 852/2004) means water meeting the minimum requirements laid down in Council Directive 98/83/EC of 3 November 1998 on the quality of water intended for human consumption.

**Clean seawater:** (Article 2.1.h Regulation (EC) No 852/2004) means natural, artificial or purified seawater or brackish water that does not contain micro-organisms, harmful substances or toxic marine plankton in quantities capable of directly or indirectly affecting the health quality of food.

**Clean water:** (Article 2.1.i Regulation (EC) No 852/2004) means clean seawater and fresh water of a similar quality.

**Processed products** (Article 2.1.o Regulation (EC) No 852/2004) means foodstuffs resulting from the processing of unprocessed products. These products may contain ingredients that are necessary for their manufacture or to give them specific characteristics.

### **1.3 Key concepts**

**Identification mark:** A mark of the food business operator shall affix a product of animal origin if the product has been produced in accordance with Regulation (EC) No 853/2004. The label affixed before an animal product leaves the plant. The brand includes eg approval number (see Annex II to Regulation (EC) No 853/2004). Mark may also be applied to other products produced at the plant.

**Retail:** (Article 3.7 of Regulation (EC) No 178/2002) Handling and / or processing of food and its storage at the point of sale or delivery to the final consumer, and includes distribution terminals, catering operations, factory canteens, institutional catering, restaurants and other similar food service operations, shops, supermarket distribution centres and wholesale outlets.

**Local character, marginal and limited:**

- Local character will be delivered to the local area, in municipality and adjacent municipalities.
- Marginal means a maximum production capacity of 500 kg per week.
- Limited means a restricted range and / or a limited number of recipients.

This assumes that the current retail establishment also has a certain supply of animal food products directly to consumers.

Private residential: even in private homes may be preparing food that reaches the public, but the maintenance and observance of the principles of good manufacturing practice and good hygiene practices. In most cases it is a simple preparation that reaches few consumers.

Traditional smoking: Smoking in an enclosed space such as a house or chimney where smoke is generated during the fish and made to flow around it, move to a chimney.



## **2. Application for registration/approval**

Food business operators have an obligation to inform the competent control of all food establishments they are responsible for such facilities to be registered or approved (Article 6.2 and 6.3 of Regulation (EC) No 852/2004).

Food shall not be placed on the market from a facility prior to registration or authorization decision taken (Article 4 of Regulation (EC) No 853/2004, Article 6.2 (EC) No852/2004).

All food business establishments shall comply with the relevant legislative requirements such as effective procedures to meet the prerequisites and HACCP, equipment, premises, areas or other places, whether the facilities subject to authorization or registration. The main difference between approval and registration to the approval tested plant at least one inspection in place before it is allowed to start placing food on the market from the plant. Upon registration made this examination at the first official controls in place after the business has started.

 An entity wishing to run the production of products of fish origin must draw up a project of technical design of the establishment in which the production is to take place, prior to obtaining a building permit or adapting to its needs the already existing buildings or facilities, that is, before the commencement of the planned activity. Such a project should then be sent along with the application for its approval to the authority

competent for the planned place of business. Along with the application, the authorities must be notified of the planned system of activity (year-round, seasonal), the scope and volume of production and the type of fish products to be produced in the establishment.

The purpose of submitting the project before the construction or adaptation of an establishment for production of food is to avoid a situation in which the competent authority does issue a permit to conduct such a business because the requirements for the planned infrastructure in the establishment are not sufficiently met.

The project of technological design of an establishment where business activity is to be conducted should consist of a descriptive part and a visual presentation part and must meet the requirements contained in the existing regulation on technological design.

Once an entity receives an administrative decision approving the project of technological design of such an establishment, the entity must submit a written request for the registration of the establishment to the authority competent for the planned location of the business.

Then an administrative decision is made regarding entering the establishment into the register of establishments, and a veterinary identification number is given to it.

Commencing the actual activity is possible only after receiving the aforementioned decisions from competent authorities.



An entity wishing to run the production of products of fish origin should be sent application for its approval to the authority competent for the planned place of business. The information required by the operator's administrative data about the company and a business description. Activity description should be sufficiently comprehensive to enable the inspection to be addressed is whether the activity should be registered or approved. Then an administrative decision is made regarding entering the establishment into the register of establishments, and a veterinary identification number is given to it.

Commencing the actual activity is possible only after receiving the aforementioned decisions from competent authorities.

### 3. Basic rules for all fishing activities

General hygiene requirements for all food business operators are governed by Regulation (EC) No 852/2004 of the European Parliament and of the Council of 29 April 2004 *on the hygiene of foodstuffs* (OJ L 139, 30.4.2004, p.1), Regulation (EC) No 853/2004 of the European Parliament and of the Council of 29 April 2004 laying down specific hygiene rules for food of animal origin (OJ L 139, 30.4.2004, p. 55–205), Regulation (EC) No 854/2004 of the European Parliament and of the Council of 29 April 2004 laying down specific rules for the organization of official controls on products of animal origin intended for human consumption(OJ L 155, 30.4.2004, p.206).

The layout, design, construction, siting and size should be such that they are easy to keep clean and maintain. They should make it possible to carry out all stages of the handling in a hygienic manner.



#### 3.1 Requirements for buildings and rooms where food production is conducted

Production of fish products in the small business and their sales may be conducted in a special separate building or in a customized room (eg, summer kitchen), which is used exclusively for this purpose.

Taking into account the general requirements, food premises located in **separate buildings** where food production is carried, in particular, should:

- allow for the hygienic performance of all operations, be kept clean and in a good technical condition, be adapted to the processing and storage of food in appropriate temperature conditions, have appropriate equipment, structure, location and size,
- be protected against pests,
- have adequate number of flush lavatories connected to an effective drainage system – **the toilets may not be connected directly to the rooms in which food is handled,**
- have adequate number of washbasins, suitably located and designated for washing hands – the washbasins for washing hands must have hot and cold running water and must be supplied with washing agents for washing hands and

for hygienic drying of hands – as far as possible, stands where food is washed should be separated from the washbasins,

- have suitable and sufficient systems of natural or mechanical ventilation; a mechanical air flow from contaminated areas to clean areas should be avoided – ventilation capacity should be sufficient to remove excess water vapour, smoke and odours; ventilation systems must be so designed as to allow easy access to the filters and other parts requiring cleaning or replacement,
- have adequate natural or mechanical ventilation in all the sanitary facilities,
- have adequate natural or artificial lighting (light bulbs in lamps should be protected by shades made of a material other than glass) in all the food premises,
- drainage devices designed and constructed in such a way as to avoid the risk of contamination when the drainage channels are fully or partially open; they must be so designed as to ensure that the waste does not flow from a contaminated area to a clean area, in particular, to an area where food is handled, which may pose a high risk to the final consumer, and
- if necessary, adequate changing facilities for personnel should be provided,
- cleaning and disinfection agents may not be stored in the areas where food is handled.

In addition, the design and decoration of food premises located in **separate buildings**, where food products are prepared, treated or processed must allow for a best practice of food hygiene, including protection against contamination between and during different activities and operations. In particular:

- surfaces such as floors, walls, ceilings, and those remaining in contact with food must be kept in good condition, they must be easy to clean, and, where necessary, to disinfect; these surfaces must be made of materials impervious, non-absorbent, washable and non-toxic unless the operator of the establishment is able to prove that other materials used for that purpose are also suitable,
- ceilings (where there is no ceiling, the inner surface of the roof) and overhead fixtures must be so designed and finished as to prevent the accumulation of dirt, to reduce condensation of water vapour, to prevent growth of undesirable moulds and shedding of particles,

- windows and other openings must be so constructed as to prevent the accumulation of dirt. The ones that can be opened to the outside environment should, where necessary, be equipped with insect-proof screens that can be easily removed for cleaning. In places where open windows might result in contamination, they must be kept closed during production,
- doors must be easy to clean, and, where necessary, to disinfect. This requires the use of smooth and non-absorbent surfaces unless the operator can prove to the district veterinarian that other materials used for that purpose are appropriate,
- surfaces (including surfaces of equipment) in the areas where food is handled, and particularly those having contact with food, must be in good condition and be easy to clean, and, where necessary, to disinfect. This requires the use of smooth, washable, corrosion-resistant and non-toxic materials.

In addition, where appropriate, such facilities must be furnished with adequate devices for cleaning and disinfecting of work tools and equipment. Such devices must be made of materials resistant to corrosion and must be easy to clean and have an adequate supply of hot and cold water. When necessary, appropriate procedures or instructions for washing of food should be adopted. Every washbasin unit or any other such a device provided for washing of food must have an adequate supply of hot and cold potable water and must be kept clean, and, if necessary, disinfected.

**However, in the case of adapted rooms (living quarters, a small catering business)** the general requirements relate primarily to the location, design, construction and maintenance, keeping such facilities clean and good technical condition, so as to avoid the risk of contamination, especially by animals and pests.

In particular, in the case of adapted rooms:

- equipment must be available to maintain adequate personal hygiene (including facilities for the hygienic washing and drying of hands, hygienic sanitary arrangements and changing facilities),
- the toilets may not be connected directly to the rooms in which food is handled,
- surfaces coming into contact with food must be in good condition – they should be easy to clean, and, if necessary, to disinfect,

- retention of fish slime, blood and scales on work surfaces should be reduced to a minimum as far as possible. This requires the use of smooth, washable, corrosion-resistant and non-toxic materials, unless the operators of the food establishment can satisfactorily ensure the competent authority that other materials used for that purpose are also suitable,

- good conditions for cleaning, and, where necessary, disinfecting of working utensils, tools and equipment should be provided,

- an adequate supply of hot and cold drinking water should be provided,

- adequate arrangements or facilities for the hygienic storage and disposal of hazardous or inedible substances and waste (whether liquid or solid) should be provided,

- adequate conditions or arrangements for maintaining and monitoring suitable food temperature conditions should be provided,

- as far as possible, food products must be so arranged and stored as to avoid the risk of contamination.

Specific requirements, however, **in the case of both special buildings and adapted premises** relate primarily to handling food waste, inedible by-products and other waste management, water supply, different items, equipment and installations in contact with food, transport, unit and collective packaging, personal hygiene of workers, storage of food, trainings, and heat treatment.



### 3.2 Requirements for equipment

Articles, fittings and equipment remaining in contact with food must be:

- effectively cleaned, and, where necessary, disinfected – such cleaning and disinfection must be carried out with a sufficient frequency so as to prevent the risk of contamination,

- designed in such a manner and made of such materials so as to minimize the risk of contamination, kept in order and good technical condition,

- made of suitable materials, constructed in such a manner, and kept a good order and condition so as to ensure their proper cleaning, and, if necessary, disinfection. This rule does not apply to disposable containers and collective packaging,

- installed in a manner that ensures adequate cleaning of the equipment and the surrounding area.

Where necessary, the equipment used for production must be equipped with appropriate control devices to ensure the production of safe food. All the chemicals used to prevent corrosion of the equipment and work surfaces must be used in accordance with best practice.

### **3.3 Requirements for HACCP(GMP,GHP)**

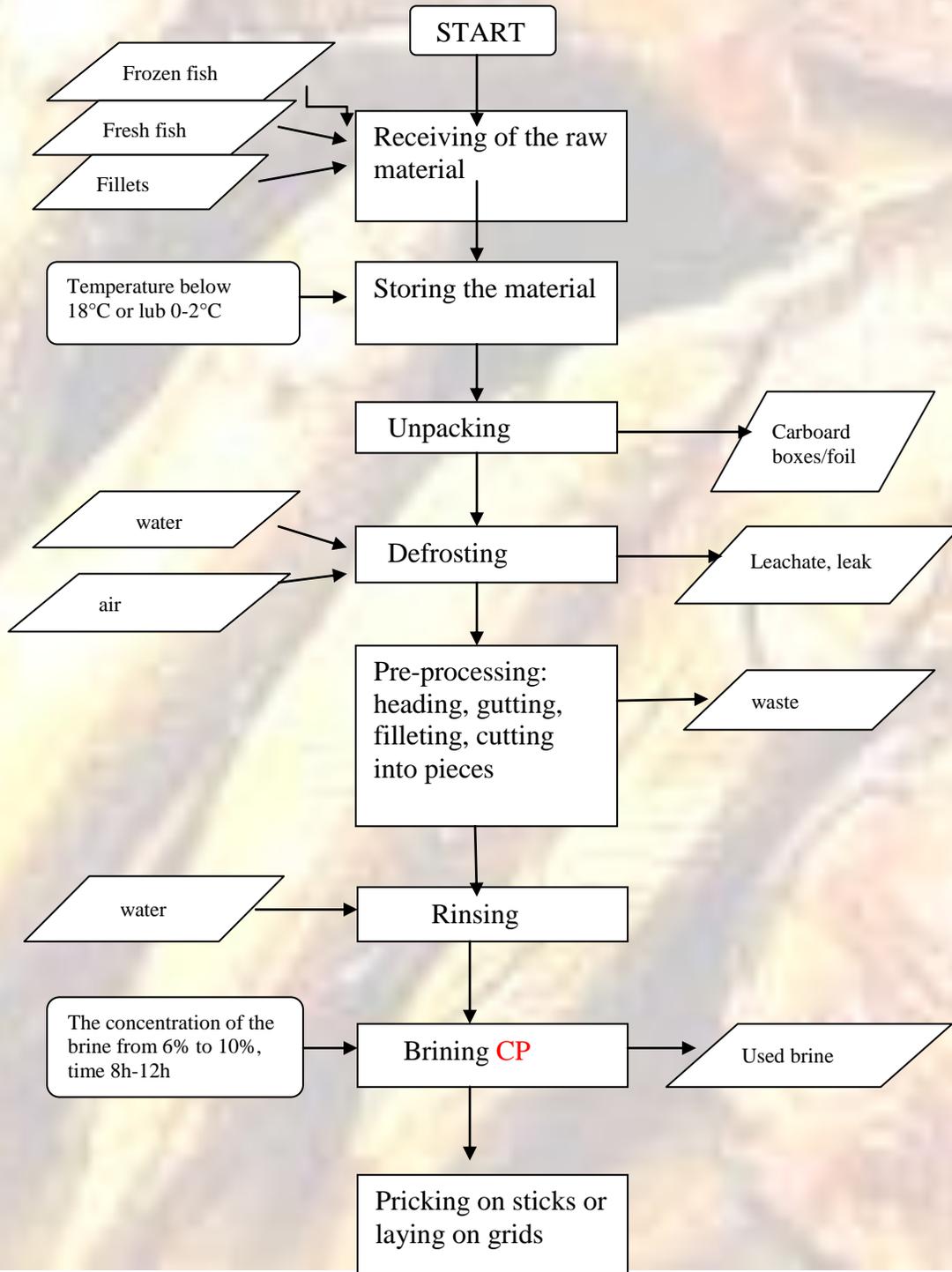
Establishments should develop, implement and maintain a permanent procedure or procedures based on HACCP principles (Article 5 of Regulation (EC) No 853/2004). They should provide sufficient flexibility to be applicable in all situations, including in small businesses. In particular, it is necessary to recognise that in certain food businesses, it is not possible to identify critical control points and that, in some cases, good hygienic practices can replace the monitoring of critical control points. Similarly, the requirement of establishing 'critical limits' does not imply that it is necessary to fix a numerical limit in every case. In addition, the requirement of retaining documents needs to be flexible in order to avoid undue burdens for very small businesses.

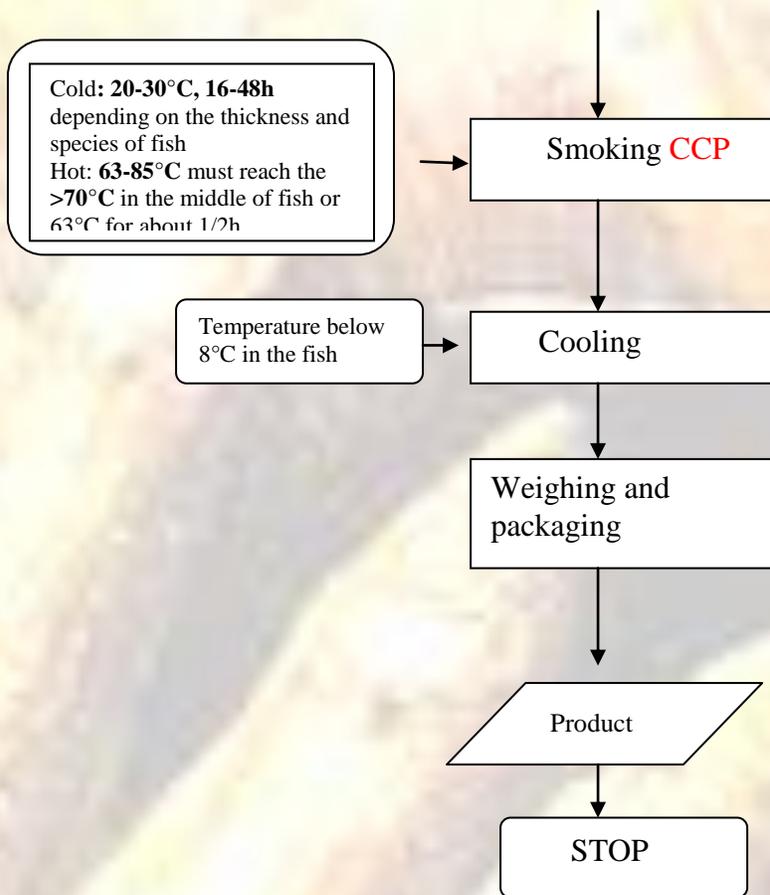
Best practice of hygiene involves actions that must be taken and hygienic conditions that must be maintained at all stages of production and marketing of food to ensure food safety. It should contain relevant information on the risks that may arise during the production and the efforts to control them. Each operator is required to develop their own programme taking into account the organizational structure and the specificity of activities at their establishment. The procedures and instructions related to best practice should be strictly adhered to by all the employees. All the work methods used at an establishment as well as recommendations on hygiene should be described in appropriate procedures or instructions.

The procedures and instructions should describe methods and frequency of cleaning and disinfection of the premises, work surfaces and small equipment, waste disposal instructions, protection against pests, and define the methods and frequency of temperature checks (heat treatment, cold conditions) at an establishment. Best practice

should also include procedures for monitoring suppliers (raw materials, spices, packaging) and flow chart containing the checkpoints for the process (Annex 1).

Annex 1. An example of a technological flow chart for smoked fish





### 3.4 Requirements for water

Water used in the production of fishery products must meet the requirements of water intended for human consumption. An adequate supply of such water must be ensured. Clean water may be used with whole fishery products. Clean seawater may be used with live bivalve molluscs, echinoderms, tunicates and marine gastropods; clean water may also be used for external washing. When clean water is used, adequate facilities and procedures are to be available for its supply to ensure that such use is not a source of contamination for the foodstuff. Potable water must be used where it is necessary to avoid contamination of seafood.

Establishment who uses water in the production must ensure that the water meets drinking water. It has a procedure for monitoring the quality of water used in the plant.

Prepare a plan of self-control, which sets water points and lines of research microbiological, physicochemical and chemical properties comply with current legal requirements.

When the plant is used recycled water producer must ensure that the water meets the requirements for drinking water.

Ice remaining in contact with food, or that which could contaminate the food must be produced from water intended for human consumption, and be produced, handled and stored under conditions that protect it from contamination . Establishment who uses ice in the production must ensure that the ice meets drinking water.

### **3.5 Personal hygiene requirements for workers**

Food handlers and people staying in rooms where food is handled, do not contaminate the food (Annex II, Chapter VIII to Regulation (EC) No 852/2004)

Every person working in a food-handling area is to maintain a high degree of personal cleanliness and is to wear suitable, clean and, where necessary, protective clothing.

A sick person, or a person being a carrier of a disease that can be transmitted through food, or diagnosed with the presence of infected wounds, skin infections, sores or diarrhoea may not be permitted to work with food or the entrance to the area where food is processed or handled in any capacity if there is a likelihood of direct or indirect contamination.



Every person should have a medical certificate issued by a doctor to admit them to work in food production.

Any employee of the establishment who is likely to come into contact with food must immediately notify the responsible person of their disease or its symptoms, and, if possible of their causes.

Where necessary, appropriate work clothing, headgear and footwear used. Protective clothing should be stored separately from private clothing/clothes. Liquid soap and disposable towels shall be provided at all hand wash basin.

Jewellery and watches may not be worn so that the food industry can come into contact with unpackaged food or otherwise pose a hygiene risk. Smoking/snuff are not permitted in the food hall. Temporary visitor in the rooms where foodstuffs are prepared should wear protective clothing. The locker room should be kept in good order.

### 3.6 Training

It must be ensured that food handlers and persons working with food are supervised or trained in food hygiene matters in a manner appropriate to the nature of their work.

Such training can take many forms, including self-organized internal trainings, or trainings organized by outsourced specialists.

Operators are responsible for new employees an introduction to the tasks and that other employees have relevant training.

All staff working in the facility shall have knowledge on food and other necessary training in their respective areas of responsibility.



### 4. Requirements for raw fish

Raw fish must meet the requirements set out in Annex III, Section VIII of Chapter III in the A and D parts as well as in the Chapter V of the aforementioned Regulation No 853/2004 and in the Annex II of Commission Regulation (EC) No 2074/2005 of 5 December 2005 *laying down implementing measures for certain products under Regulation (EC) No 853/2004 and for the organization of official inspections under Regulation (EC) No 854/2004 and (EC) No 882/2004, establishing deviations from Regulation (EC) No 852/2004 and amending Regulation (EC) No 853/2004 and (EC) No 854/2004* (OJ L 338, 22 .12.2005, p. 27, as amended. d.) that is:

- in the case of unpackaged products that are not distributed, shipped or processed immediately after delivery to an on-land establishment, they should be kept covered with ice. Fish should be stored in a manner that prevents large piles or overflowing boxes. Packaged fresh fishery products must be cooled to a temperature of melting ice,
- heading and gutting must be done in a hygienic manner and as quickly as possible. The fish without heads and gutted is to be washed thoroughly with potable water

- filleting and cutting must be done in such a manner as to prevent contamination or spoilage of fillets. Exposure time for the fillets on the tables is to be kept at a minimum,
- fillets and slices must be wrapped or packaged and chilled as soon as possible after their preparation,
- fresh fishery products stored in containers should not come into contact with water originating from melting ice,
- fishery products to be eaten raw must be frozen at a temperature no higher than  $-20^{\circ}\text{C}$ ,
- fishery products to be subjected to a cold smoking process such as herring, mackerel, sprat, wild living Atlantic or Pacific salmon should be frozen at a temperature no higher than  $-20^{\circ}\text{C}$ ,
- in cryopreservation be kept a temperature of the fish is equal to or lower than  $-18^{\circ}\text{C}$  the product must be packed and / or glazed to prevent dehydration.

This means that the fishery products must meet the relevant requirements relating in particular to the production of fresh and processed fishery products (including their preparation, storage and transport), parasites or other health standards (eg microbiological criteria, toxins, histamine).

Upon receipt of raw fish and fish products, the following checks are carried out:

- Organoleptic examination: appearance, odor, texture, also visible parasites.;
- Indication of spoilage and / or contamination, eg TVBN, histamine, heavy metals, pesticides, nitrates, etc.;
- Microbiological analysis especially on the stored material, to prevent the formation of toxins;
- Foreign objects;
- Physical characteristics such as size.

## 5. Temperature Control

The food must not be stored at a temperature that may cause a risk to health. Throughout the technological process there must be a cold chain (Annex II, Chapter IX to Regulation (EC)No852/2004).

The company will have control over the food stored in the freezer or freezer will not be unfit due to high temperature. To sustainability dates on prepackaged products shall apply to the storage temperature shall be that indicated on the package (usually -18°C) or lower.

Frozen products should be thawed in such a manner that the potential for growth of bacteria or formation of toxins. The food must not be subjected to a temperature that may pose a health risk, and after thawing should be treated so that the risk to growth is minimized. After thawing it is recommended to store the fish in the refrigerator at a temperature not exceeding 8°C until the heat treatment. Melt water from the thawing process, which can contaminate other food or otherwise cause health risks, to be led away.

Heat treatment at a temperature of 70 ° C or higher is a good way to quickly kill undesirable microorganisms in food. Lower temperatures than 70 ° C for a longer time can give a similar effect (final temperature in the center of the product to 60 ° C for about ½ hour- hot smoking, below 20-30°C 18-48 hours- cool smoking). When cooling down, the food comes for a limited time to have a temperature that promotes growth. Therefore it is important that the sensitive temperature range is passed quickly, cooling should go as soon as possible. One guideline is that if a food is cooled to +8 ° C or below within four hours of cooking time so no growth begins in the food. The legislation is clear that cooling down to a temperature that does not cause risk to health, should be performed as soon as possible after heating.

Tab. 1 Recommended temperature

Fresh seafood and thawed unprocessed fishery products	the temperature of melting ice + / -0 °C max +2 °C
Products packed in a modified atmosphere	+2° C
Chilled fish (eg smoked salmon)	Max +4°C
Cool tins (eg pickled herring)	Max +6°C
Frozen fish and fish products during storage and transport	Top - 18°C
Frozen fish (proper pre-production of preserves) in brine	Top - 9°C
Hot Smoking	final temperature in the center of the product to 60° C for about ½ hour or 70°C
Cold smoking	below 20-30° C 18-48 h
Cooling of hot smoked products	To below 10° C within 2-4 h and to below 4° C within 6 h
Cooling of cold smoked products	to between 0° C to 4° C within 4 h
Fish such as cold smoked or achieve a core temperature higher by 60 ° C	frozen to a temperature of at least -20 ° C in all parts of the product in 24 hours.

The sustainability of fish materials and products made from fish and shellfish depend on the temperature at a sufficiently low level.

In determining the storage temperature and shelf life in store for both cold and hot smoked products should take into account the risk of microbial growth during refrigerated storage. Especially the growth of *Listeria monocytogenes* in cold-smoked fish products must be considered. Therefore, , it is recommended a maximum of 21 days sustainability of cold-smoked fish products prepackaged at +4 ° C and max 28 days sustainability of hot-smoked fish products prepackaged at +4 ° C (tab.2).

Tab. 2 Recommend shelf and storage temperature for fish products

<b><i>Product (fish products)</i></b>	<b><i>Recommend Shelf</i></b>	<b><i>Rec. Storage Temp.</i></b>
Smoked, cured, salted	Max 21 days prepackaged Max 14 days not packed	Top +4 ° C 4-8°C
Hot smoked	Max 28 days Max 7 days not packed	Top +4 ° C 4-8°C

**6. Requirements for microbiological testing of finished product, for the frequency of product testing, and for the efficiency of cleaning and disinfection of work areas and equipment.**

Requirements for ready fishery products are set out in the Annex I, Chapter 1 of the Regulation (EC) No 1441/2007 of 5 December 2007, amending Regulation (EC) No 2073/2005 on microbiological criteria for foodstuffs (OJ L 322, 7.12.2007 p. 12). (Table 3). *Listeria monocytogenes* is a faroorganism for vacuum-packed smoked, pickled and salted fish. *Listeria* bacteria grow at refrigerator temperature, in vacuum packs and packs of so-called modified atmosphere. The bacteria grow more slowly the lower the temperature. The longer food is stored, the greater the risk that the bacteria grow to dangerous levels. *Listeria* can tolerate high salinity and freezing but can't grow in an acidic environment. The bacteria are killed at normal cooking temperature, about 70 ° C. *Listeria monocytogenes* contaminate food during the manufacturing process, which presents a huge problem in some food industries. The effectiveness of processes and procedures designed to prevent, eliminate or reduce *Listeria monocytogenes* to acceptable levels should also be verified. Verification should be done through microbiological testing.

Microbiological criteria 2073/2005 includes two different criteria:

- food safety criteria (applied to RTE products placed on the market)
- process hygiene criteria

Tab. 3 Microbiological requirements for the finished product

Type of Food	The sampling plan	limits	The reference test method	The stage at which the criterion is used
1.2 Food ready-to-eat, in which growth of <i>L. monocytogenes</i> is possible, which is not food intended for infants and for special medical purposes	5 0	100jtk / g	EN/ISO 11290-2	Products placed on the market during their shelf-life
	5 0	Absent	EN/ISO 11290-1	Before the food has left the immediate control of the

		in 25g		food establishment, which is its manufacturer	
1.3 Ready-to-eat foods in which the growth of <i>L. monocytogenes</i> , is not possible, which is not food intended for infants and for special medical purposes	5	0	100jtk / g	EN/ISO 11290-2	Products placed on the market during their shelf-life

Article 5, item 2 of Regulation No 2073/2005 of 15 November 2005 on microbiological criteria mentions taking samples from productions areas and equipment used for production and processing of fish. *Listeria* is most often released into the product from manufacturing environment. As it has strong adhesive properties and is characterized by high resistance to external factors, its presence can be detected on steel, plastic or glass surfaces. On many such surfaces, it develops difficult-to-remove biofilms, from which *Listeria* cells may enter the food. The operator should analyze the entire manufacturing process, the possibility of secondary contamination and the methods used for cleaning and disinfecting the production surfaces, and what measures and agents are being used for it. Further, based on such an analysis, a schedule of testing work surfaces and small equipment paying special attention to *Listeria monocytogenes* should be developed. In the establishments with a low production volume, the number of sampling points should be about five (for example, a knife, a table, smoking stick) and it should be done once a year. Such places are likely to be the source of recontamination of the product.

The product originating from a small smokehouse should be monitored and tested for *Listeria monocytogenes*. Taking in account the small size of smoked fish production in small establishments, the frequency of testing for the finished product has been determined, which is presented in the following table (Tab. 4).

Tab. 4 The frequency of testing of the finished product.

Weekly volume of production determined based on production reports	The frequency of sampling to determine the presence of <i>L. monocytogenes</i> in 25g
Cold and hot smoked fish, up to 500 kg	1 sample / year
500kg-1000kg	2 samples / year
Over 1000kg	3 samples / year

Samples may be taken from processing areas and equipment. Suitable sample materials: disc spill, swabs from cooling or floor drain. An alternate sampling for both the total number of bacteria / yeast / mold and partly *Listeria monocytogenes* can be recommended. High total number of bacteria / yeast / mold on cleaned surfaces indicate that cleaning is not sufficient, which increases the risk of pathogens such as *Listeria* established.

Tab. 5 Minimum number of samples on surfaces for colony counts and *Listeria monocytogenes* depending on annual production.

Annual production	Total bacteria	<i>Listeria monocytogenes</i>
≤ 500 kg	5-10 test 1 times per year	3-5 Sample 1 every year
500 – 1000 kg	5-10 test 2 times per year	3-5 Sample 1 every year
≥ 1000 kg	5-10 test 3 times a year	3-5 Sample 2 times per year

## **7. Requirements for single and collective packing of foodstuffs**

Materials used for the production of unit and collective packaging must not be a source of contamination (Annex II, Chapter X to Regulation (EC) No 852/2004, Regulation (EC) No 1935/2004). What is more, the materials used for production of unit packaging must be stored in such a way as not to be exposed to the risk of contamination. Jobs and operation related to both unit and collective packaging must be conducted in such a way as to prevent contamination of the products. Containers used for shipping of fresh fishery products under ice must ensure that the water formed as a result of melting ice will not remain in contact with the product.

Reusable materials used to produce unit and collective packaging for food products must be easy to clean, and, if necessary, to disinfect.

When purchasing packaging check that the packaging materials:

- meets hygiene requirements
- does not affect the taste, smell or texture
- not transfer substances that can be harmful to human health
- is strong enough to ensure effective protection during transportation and handling.

The material, counter-refundable or non-recurring, that come in direct contact with food must be approved for food use.



## 8. Product labelling requirements

The Council Regulation (EC) No 104/2000 of 17.12.1999 on the common organization of the markets in fishery and aquaculture products (OJ L 17, 21.1.2000, p. 22) and Commission Regulation (EC) No 2065/2001 laying down detailed rules for the application of Council Regulation (EC) No 104/2000 as regards informing consumers about fishery and aquaculture provides guidance on labelling of fishery products such as fishing area, the origin of the product, the commercial designation, and the method of production. Commission Regulation (EU) No 16/2012 in the appended section IV to Annex II to Regulation 853/2004, paragraph 1 defines the term "date of manufacture," in the case of fishery products, as the date of trapping or fishing while the Item 2 imposes on companies the requirement to ensure the availability of information on the date of manufacture and/or freeze date if different from the date of manufacture.

1. Name - name of the product
2. List of ingredients
3. Allergy label
4. Quantity of certain ingredients or categories of ingredients
5. Net quantity
6. Best before date

7. Storage Instruction

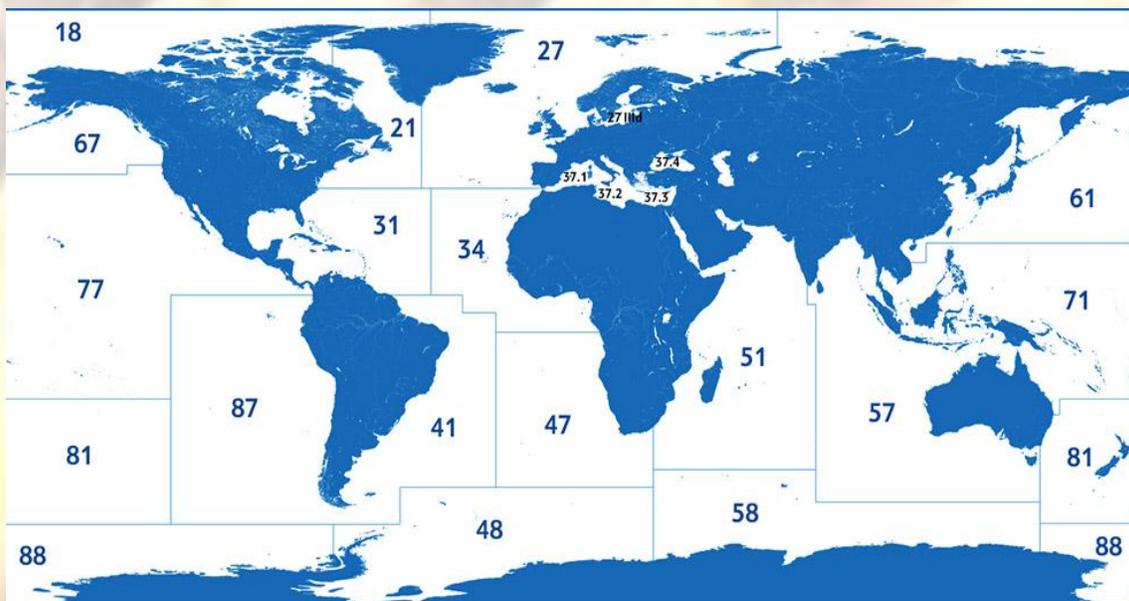
8. Name and address of manufacturer, packer or seller. Information on the place where the food is produced, if the omission can lead to misunderstandings.

9. Some (eg live fish, fresh or chilled fish fillets, frozen fish, fillets and dried and salted fish, smoked fish), fish products must be labeled with the: Trade name, production method, origin ( fot.1).

Fishing area codes are set out in Regulation (EC) nr 2065/2001 of 22 October 2001 laying down detailed rules for the application of Council Regulation (EC) No 104/2000 as regards informing consumers about fishery and aquaculture products ( OJ L 278, 23.10.2001,p.6)

The labeling on the origin of fish products need not necessarily be placed on the fresh or chilled product. To be credible, the labeling must comply with at all stages. Imports may trade name omitted and Latin name stated.

Fot. 1 FAO fishing areas.



10. Specific labeling rules for certain food Along with the plant number and name of the country, each package must be marked with a Lot number (batch number). This number must identify a batch of production. Typically identified a batch as a manufacture. Batch marking may be in code or in clear writing. If the sell-mark will consist of day-month-

year, this serve as a marking for traceability. If there are several different types of labeling, the batch label preceded by an "L". L is the abbreviation of the Lot which is the name for the batch. The purpose of this is to make a withdrawal in a safe manner.

## **9. Pest Control**

The food is not contaminated by pests, insects or domestic animals ( Annex II, Chapter VI and IX to Regulation(EC) No852/2004)

Waste must be managed so that any pests can not access it. Rooms, doors and windows should be tight. If doors or windows periodically need to be kept open, for practical reasons, the procedures are in order as far as possible avoid pests from entering, such as by inserting mosquito net in the open window.

The outdoor environment around the plant buildings will be adapted to prevent the occurrence of pests. Married and pesticides may not normally be used indoors, but there is instead an indicator stations used. Exceptions apply for temporary and scheduled controlled remediation of already identified problems with pests.

Good hygiene practices should be used to avoid creating a favorable environment for pests. Control of rodents outdoors, indicators of rodents indoors and insect traps at entrance doors are. Physical, chemical, and biological pesticides must be handled and applied by trained personnel.



## **10. Disposal of waste from products**

Food waste, animal by-products and other waste must be in particular:

- removed as soon as possible from the premises where food is stored or handled so as to prevent them from pilling up,
- stored in sealed (airtight) containers, unless the entity responsible for the establishment can satisfactorily prove to the district veterinarian that other types of containers or evacuation systems are appropriate. Such containers should be properly constructed, maintained in good condition and easy to clean, and, if necessary, to disinfect. Proper labelling is also recommended.

All the waste must be disposed of in a hygienic and environmentally friendly way, in accordance with the applicable law, including and taking into account the provisions of Regulation (EC) No 1069/2009 of the European Parliament and of the Council of 21st October 2009 laying down health rules concerning animal by-products of animal origin not intended for human consumption and repealing Regulation (EC) No 1774/2002 (Regulation on animal by-products) and Commission Regulation (EU) No 142/2011 of 25 February 2011 on the implementation of the Regulation of the European Parliament and Council Regulation (EC) No 1069/2009 laying down health and sanitary rules concerning animal by-products not intended for human consumption.

The rules of disposing of the aforementioned waste should also be developed (eg, appropriate procedures or instructions) All the refuse sites must be designed and operated in such a way as to keep them clean, and, if necessary, also free of animals and pests.



## **11. Cleaning and disinfection**

The venue with its furnishings and equipment, and vehicles and containers used for transporting foodstuffs, regularly cleaned and possibly disinfected so that the danger does not arise to food contamination (Annex II, Chapter I - V, to Regulation (EC) No 852 / 2004).

Activities must comply with the legislative requirements that the building be kept clean and in good condition. Equipment, items, accessories, etc. that come in direct contact with food shall be cleaned effectively and often enough to prevent the risk of contamination. Cleaning equipment should be kept clean and stored so that they are not likely to contaminate food. Plant equipment should be cleaned and disinfected with chemicals permitted for contact surfaces food sector.

Cleaning and disinfection should be used according to the manufacturer's instructions. In time with chemicals for cleaning and disinfection should be available documentation (data sheet, certificate). We recommend using antibacterial and odorless soap.

To hazardous and / or inedible substances labeled in an adequate manner and stored in separate and secure containers (Annex II, Chapter IX to Regulation (EC) No 852/2004).

## **HELPFUL LINKS:**

<http://eur-lex.europa.eu/>

[http://eur-](http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2005:133:0035:0036:EN:PDF)

[lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2005:133:0035:0036:EN:PDF](http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2005:133:0035:0036:EN:PDF)

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32004R0852:en:NOT>

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32004R0853:en:NOT>

[http://eur-](http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:327:0039:0041:EN:PDF)

[lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:327:0039:0041:EN:PDF](http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:327:0039:0041:EN:PDF)

[http://eur-](http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2012:008:0029:0030:EN:PDF)

[lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2012:008:0029:0030:EN:PDF](http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2012:008:0029:0030:EN:PDF)

[http://eur-](http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2004:139:0206:0320:EN:PDF)

[lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2004:139:0206:0320:EN:PDF](http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2004:139:0206:0320:EN:PDF)

[http://eur-](http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2005:338:0001:0026:EN:PDF)

[lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2005:338:0001:0026:EN:PDF](http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2005:338:0001:0026:EN:PDF)

[http://eur-](http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2007:322:0012:0029:EN:PDF)

[lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2007:322:0012:0029:EN:PDF](http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2007:322:0012:0029:EN:PDF)

[http://eur-](http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2000:017:0022:0052:EN:PDF)

[lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2000:017:0022:0052:EN:PDF](http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2000:017:0022:0052:EN:PDF)

[http://eur-](http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2001:278:0006:0006:EN:PDF)

[lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2001:278:0006:0006:EN:PDF](http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2001:278:0006:0006:EN:PDF)

<http://www.fao.org/>

[http://eur-](http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:1998L0083:20031120:EN:PDF)

[lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:1998L0083:20031120:EN:PDF](http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:1998L0083:20031120:EN:PDF)

### ***Related documents:***

*Explanatory leaflet- small outside fish-smokeres at retail level*