

A Guide to Food Safety Management for Fishmongers

Final Draft

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1 Introduction - Getting the best from this guide

A Guide to Food Safety Management for Fishmongers has been developed specifically for people who manage a typical independent fishmonger shop. Many parts of this *Guide* are also applicable to a mobile fishmonger van.

You will see that *The Guide* is separated into individual sections which can be thought of as a chapter. Each section or chapter covers a specific topic starting with the terms of reference before moving on to the description of a retail operation, HACCP and why HACCP does not apply. The following sections look at basic principles including cross contamination and cleaning. Developing standard operating procedures is also included.

At the start of each section there is a short summary which explains why it is important. This allows the fishmonger to decide if they need to continue reading the more technical content in the section.

In terms of using this *Guide*, a good approach is to try to get a regular study routine. Set aside times for study but be ready to give and take a bit. If something occurs which means that you miss a planned session, try to re-schedule and make it up later. Alternatively, you may be able to grab a chance to read a section at odd moments. You'll be amazed how much you can learn in 15 minutes. In any case, the most effective learning takes place across shorter periods of time. You need to be able to concentrate so try to find a quiet place where you won't be distracted. Time spent just reading is not the same as time spent learning. You must become involved so feel free to highlight specific parts of the text or make your own notes in this *Guide*. The secret is to be flexible.

Good luck.

Seafish Onshore Training team

2 Terms of reference

This guide is not a definitive interpretation of the law, which only the courts can provide. It is the responsibility of the individual business to ensure compliance with the law. Where there is uncertainty as to whether this guide is appropriate for your business you are advised to seek advice from your local food authority.

Seafish was approached by the National Federation of Fishmongers (NFF) to develop a model HACCP (Hazard Analysis and Critical Control Point) plan and supporting materials which independent fishmonger businesses including mobile fishmongers could use.



The original working title was *The Guide to HACCP planning for fishmongers*. However, Seafish colleagues conducted a piece of work using the *My HACCP* online tool. The results indicated that a full HACCP plan was not the best way forward for a well-managed traditional fishmonger shop with the appropriate policies and procedures in place as there were no uncontrolled hazards. This was based upon:

“A careful application of the *Campden HACCP Decision Tree* (Appendix 3) which suggests that ALL of the hazards to be encountered in a typical independent fishmonger operation are readily controllable through the application of prerequisite programmes, other policies and standard operating procedures (SOPs).”

Taking this approach into consideration, there are no critical control points (CCPs) required and thus a HACCP plan isn't required to effectively control hazards and to safeguard food safety. Therefore the title of this publication became *A Guide to Food Safety Management for Fishmongers*.

This *Guide* isn't intended to address any specialist higher level hazards that are uncharacteristic of most fishmongers; for example hot smoked fish production and the preparation of pate. A fishmongering business using this *Guide* doesn't mitigate them from their responsibility of managing food safety hazards. However, it does move the focus from managing problems to a system based on good practices.

3 What is a fishmonger business?

About this section:

There are many different formats of a fishmongering business. These include a mobile fish van; a fish stall found at a market, a fish counter in a supermarket and an online fishmonger where products ordered using a computer are delivered directly to the customer.

However, for the purposes of this Guide we are going to focus on a traditional high street fishmonger, which is often referred to as an independent fishmonger.

These are usually owner-managed small businesses with space and a workforce.

Space implies that different operations take place in different parts of the business and these spaces and movement of materials must be managed.

Workforce, even if it's only a "Saturday person" implies a need for staff supervision, instruction and training to be carried out by the business.

So it is not just about the fish and shellfish, food hygiene management also includes staff, space and the flow of raw materials and finished products through the business.

And, let's not forget the customers.

Products which are available to buy at an independent fishmonger shop include chilled fish such as cod, haddock, monkfish and plaice along with smoked fish such as kippers (which are smoked herring) and salmon. It is worth noting that all cold smoked fish products except salmon and trout need to be cooked before eating.

Many shops will also sell shellfish which can be split into two main groups; these are crustaceans which include crabs and lobsters and molluscs which include mussels, oysters and scallops. Live shellfish should feel heavy for their size and feel full when you tap them. If live molluscs such as mussels have closed shells, or close when you disturb them, they are normally in a good condition. However, if their shells remain open, they can't be sold to customers. Live shellfish must be kept moist, by keeping them in brine, which prevents them from drying out. They must be handled with care as dropping them causes physical shock. Ideally, they should be stored at consistent cool temperatures as extreme changes in temperature cause thermal shock. Cooked shellfish should have intact shells. Cracked shells blight their appearance and cracks can expose the flesh to water and other entities which could be harmful causing the flesh to spoil.

Frozen seafood products can also be purchased at some shops. These need to be displayed in date order with stock rotated. Protective packaging should be used to prevent the product from becoming exposed to air. If this occurs, the product experiences freezer burn and damage to the product as the moisture is drawn out of it.

A fishmonger's daily routine can change from day to day, but there will be certain tasks that are completed each working day. Depending upon the size of the business and the number of people employed will also depend upon what jobs a fishmonger completes. Many fishmongers will start their working day before most people have woken up, with a visit to a fish market to purchase seafood landed there. A fishmonger may also buy their seafood from a wholesaler. Price and quality are important to the fishmonger and they will also take into consideration if the catch has been sourced responsibly to ensure that fish stocks remain healthy for future generations.

After purchasing their seafood, a fishmonger will transport the produce to their shop, ensuring that it's kept at a temperature of between 0°C to +8°C to maintain the quality. This seafood will then be placed

in a chiller and the fishmonger will then carefully create an eye-catching seafood display. They will ensure that stock is rotated too.

Throughout the day, whilst the shop is open, a fishmonger will maintain high standards of food hygiene, be responsible for monitoring and recording product temperatures, replenishing stock on their display and taking payments from customers. These activities contribute to the customer's shopping experience and high-class fishmongers will communicate effectively with their customers to ensure that they build and maintain positive customer relationships.

After the shop has closed, a fishmonger will remove the remaining seafood from the display and ensure that it's stored in a chiller. They will remove the ice from the seafood counter and clean it ready for the next trading day. The daily takings will also be calculated; hopefully they will reflect the work that the fishmonger has put into their daily routine!

In terms of the layout of an independent fishmonger shop, each one will vary slightly. However, there will be a storage area consisting of fridges and maybe a freezer. There will be a preparation area where the fishmonger will create different cuts such as fillets and steaks from whole fish. Along with the counter display which is the focal point, there will also be an area for weighing products and a till for processing payments. Welfare amenities including a toilet, hand washing facilities and a place for staff to change their clothing will also form part of the premises.

4 Exclusions, HACCP and hazards

About this section:

This food hygiene management guide is not suitable for all fishmongers or rather for some processes and activities that fishmongers may carry out.

This short chapter aims to help you identify any activities that are excluded from this guide, and also to decide if your business needs a full HACCP plan.

It is likely that as a typical fishmonger you will have no exclusions to be concerned about.

Exclusions

There are certain operations that some fishmongers carry out that are excluded from this guide. If you can out any of the following activities, this Guide probably does not apply to your business and you may need support from your Environmental Health Officer, a consultant or other food professionals. They include:

- Fish smoking;
- Pate production;
- Cooking (but not dressing) of crabs and lobsters;
- Cooking of other shellfish;
- Shucking of whole scallops;
- Other high care products.

The sale of smoked fish, live bivalve molluscs and packaged high care products does not exclude your business from using this Guide.

What is HACCP?

To put it simply, HACCP or Hazard Analysis Critical Control Point is a food safety management system that seeks to control food safety hazards by targeting them at specific processing or handling steps. These points where it is possible to remove or reduce a food safety hazard are called Control Points. Critical Control Points are those control point which are the last opportunity to control the hazard before the food product leaves the business.

For more information on HACCP please see Seafish's HACCP chapter in "Hygiene and Cleaning in the Seafood Industry".

One of the first steps in developing a HACCP Plan is to define the products, processes and environment that the Plan covers. In the previous chapter we examined a range of fishmonger businesses before defining the type of business this document relates too. Now we need to examine the kinds of food safety hazards that this "standard fishmonger" business may exposed to.

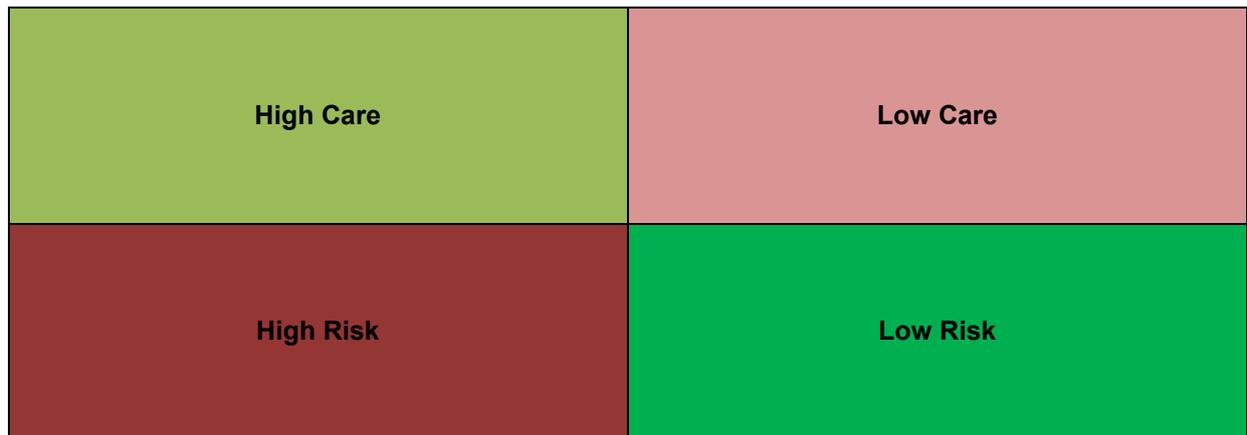
For each step in the business from supplies to sales we will examine the kind of food safety hazards that may be encountered. Later we will identify those exclusions that may apply to some fishmongers, but which are not common.

Step	Includes	Hazards	Possible Controls
Suppliers	Suppliers (Supplier standards, their food safety systems, site audits); Supplies (quality and temperature standards, packaging, delivery vehicles, boxes etc); Documentation; Contingencies.	Contamination and cross contamination; Temperature abuse and bacterial multiplication; Temperature abuse and histamine production.	Supplier Policy and approvals; Delivery inspection SOP;
Handling and Storage	Storage at ambient temperatures; Chilled storage; Frozen storage; Raw materials, products and waste.	Cross contamination and temperature abuse; Pests.	Food handling policy; Equipment checks (temperature etc); Maintenance and cleaning SOPs
Handling and preparation	Preparation of fish and shellfish for display, and for individual customers;	Cross contamination and temperature abuse. Bones and shell fragments.	Food handling policy; Personal Hygiene and similar SOPs; Process standards and related SOPs
Display and merchandising	Display of fish and shellfish; Weighing and wrapping of individual orders; Provision of guidance to customers on handling, storage and cooking.	Cross contamination and temperature abuse.	Food handling policy; Personal Hygiene and similar SOPs; Display and merchandising SOP;
Waste	Waste packaging; Waste fish and shellfish; Waste water and effluent; Other waste.	Pests; Compliance; Contamination source.	Waste Policy; Waste Management SOP;
Cleaning and maintenance	Clean as you go; Daily and weekly cleaning schedules; Regular planned deep cleaning; Equipment checks; Planned and unplanned maintenance;	Contamination; Temperature abuse; Pests; Equipment failure	Cleaning policy and individual SOPs for the cleaning of premises, plant, equipment and tools.
Management and Monitoring	Day to day monitoring of the food safety management system;	Contamination; Temperature abuse; Pests; Recording and documentation failures; Other Compliance issues; Food Authenticity and Integrity.	General Hygiene Policy; Daily and weekly checks SOP; Contingency plan; Various other SOPs such as hygiene monitoring, fish and shellfish quality, labelling and traceability etc.

High Care/Low Risk

There are four types of food operation. They are High Care/Low Care and/or High Risk/Low Risk.

In the seafood industry we usually only refer to High Care and Low Risk. Our businesses are not usually involved in High Risk processes as we take High Care seriously. Likewise we are not in the business of exercising Low Care of processes as this suggests we don't care. Those processes that are Low Risk may require a lower level of care, but it is still appropriate to the Level of risk.



High Care or Low Care, which are you?



"I'd prefer to buy my fish from the person on the left".

5 Purpose and scope of prerequisite programmes, policies and SOPs in the control of hazards

About this section:

Prior to the implementation of your company food safety or hygiene policy it is essential that your business is operating in accordance with good hygiene practices and that everyone in the business works within these rules.

Have you taken every possible step to ensure food safety? Can you prove this?

Can you demonstrate to your EHO that you follow these good hygiene practices?

For example:

- Do you clean effectively?
- Have you a cleaning schedule (in writing)?
- Have your staff been trained in how to clean?
- Do you have records of cleaning?

These are four questions that will be easier to answer that if you have the appropriate policy and SOP in place.

Policies and procedures are intended to make your life easier, not harder.

Simple definitions

1. Food Hygiene Policy: This is the overarching, short statement of intent. Your company hygiene policy should identify the company, state the nature of the business of the company, confirm the commitment of management to ensuring food safety and indicate who is responsible for the key food safety functions. One or two sides of A4 are usually sufficient for this.
2. Prerequisite programmes: These are the basic conditions and processes needed to maintain a hygienic environment throughout a food business. They provide the foundation upon which the rest of the food safety management system rests. Examples of prerequisite programmes include:
 - Well designed and maintained building and environment;
 - Equipment that is suitable for the safe storage, handling and processing of fish and shellfish;
 - Cleaning procedures are appropriate;
 - Waste handling and disposal procedures are appropriate;
 - Potable water is available as needed;
 - Staff are trained, supervised AND instructed as required to carry out their roles;
 - Temperatures can be maintained within specified limits;

For a more comprehensive list please see the appendices. Prerequisites may be standalone documents or paragraphs in a general guide to these programmes. They may also include some of the more fundamental SOPs.

3. Standard Operating Procedures: Occasionally called work instructions and used throughout the world and across all industrial sectors, SOPs describe in sufficient detail how a task should be carried out. SOPs will take the guess work out of some tasks,

provide a handy reference point should there be confusion, and are ideal as materials for new trainees. SOPs are as detailed as required and while they are not the answer to everything, they are the answer to “how do I do that?”

Purpose

The purpose of (food safety related) Prerequisites, Policies and Procedures are to:

- Reduce the risk to consumers from the food products sold by your business;
- Provide for a Due Diligence Defence should a “situation” occur that sees you under the spotlight;
- Provide a suitable working environment and working framework to ensure consistency, safety and efficiency are supported;
- Provide clear guidance on all aspects of the business so that confusion is minimised.

Which comes first, policies, prerequisites or procedures? For established fishmonger businesses the answer is none of them or all of them, which is our way of saying that you will already have a policy in place, but it may not be written down, or up to date, and may need improvement. You will have standard operating procedures that are used, but they may not be used consistently. And, you will have prerequisites in place such as clean running water, chiller and ice facilities, but are they completely adequate?

As an example let’s take handwashing.

Is it your company policy that all food handlers wash their hands as required? It may not be specifically mentioned in your company hygiene policy as many businesses keep the policy short and attach as an appendix more detailed statements.

A suitable (short) policy may consist of:

{This Company} accepts that it has a duty of care to all customers to follow high standards of food hygiene in the sourcing, storage, preparation and selling of seafood. This company fully complies with the requirements of the Food Safety Act 1990 and all relevant regulations.

This company also recognises the need to follow all appropriate industry good practice guidance and to seek to improve our operations wherever necessary.

To achieve this we use an effective food safety management system that relies on having prerequisites in place and following effective food hygiene procedures.

Appendix 2 lists all relevant prerequisites and (standard operating) procedures.

The following person(s) has responsibility for ensuring that this policy is adhered to:

Name: Position: Signed: Date.

Long and complicated Food Hygiene Policies can blur the lines between policy and procedures. Such a simple policy as that above will only need updating should the 1990 food Safety Act be superseded or (more likely) the person responsible for the Policy in your business changes.

Scope

Having written or updated your Hygiene Policy, the next steps are to write, update and expand the range of procedures you have in place and to list them in appendix 1 (see policy above). As you finalise the various procedures you can use them to assess the suitability of your prerequisites. Sticking with the handwashing theme, and working backwards, how do we know that handwashing is making a contribution to safer seafood in your business?

- Our Seafood is safer because the potential for contamination from unwashed or poorly washed hands has been reduced to a safe level;
 - Staff wash their hands frequently, as required and effectively – as specified in the Personal Hygiene Responsibilities (of staff) statement - one of the prerequisites that ensure staff are *trained, supervised AND instructed as required to carry out their roles*.
 - They can do this because they have been shown how to do so according to the Handwashing SOP, and because:
 - Adequate handwashing facilities are available (another prerequisite);
 - They are allowed time to do this;
 - They are monitored and aware of the consequences of non-compliance
 - They see their colleagues and manager do the same.

Hand washing therefore needs several prerequisites in place (suitable equipment, personal hygiene statement, contract of employment etc) plus the one standard operating procedure that explains **how** hands are washed, by **whom**, **when**, with **what** and **why**.

Each SOP should answer those five simple questions. The picture based guide to handwashing often seen at hand wash stations does not on its own constitute a SOP, although its inclusion in the SOP will be valuable.

Hand washing is a simple, routine case. What about something more complex, such as what to do if a delivery of fish is contaminated or for some other reason is unfit for consumption?

Every fishmonger business should have a procedure for this that covers how the batch is to be handled, returned, segregated or quarantined from other supplies and stock.

- There will be a SOP that covers suppliers, deliveries and what checks need to be carried out before a delivery is accepted.
 - The SOP will describe what to do if a delivery is “non-compliant” and if all or part of it is to be rejected.
 - The SOP will also state who makes the decision, on what grounds and how it is to be managed.

If however the material is found to be unfit after it has been accepted then additional steps will be required as it may need storing prior to disposal. One prerequisite would be suitable storage space for the quarantined material.

6 Application of the Campden Decision Tree

About this section:

The purpose of this chapter is to brief you on the process of analysing your business to see if it has any hazards that require a *Critical Control Point* (CCP) to manage. If you are a standard fishmonger then you are unlikely to have any CCPs and can probably skim through this chapter.

But if you have any non-standard processes (smoking, crab cooking, Pâté production etc) then you may want to read this chapter more carefully to decide if you need to apply the decision tree.

It will help in understanding this section if you print off the Campden Decision Tree and have it to hand while reading the following.

Before you start

Before you start to use any HACCP decision tree you will need to have gathered information on the following areas:

1.1 Identifying and listing potential hazards;

- A flowchart or plan showing the inputs and outputs of your business – this can be as simple or complex as you wish it to be. It will serve to define the scope of what is to be assessed by the decision tree. It must be an accurate representation of your business and how it operates;
- The potential hazards in your business – a simple (but comprehensive) list will be sufficient for this. Hazards can be grouped into;
 - Physical hazards (bones etc);
 - Chemical hazards (including biotoxins and other “psycho-toxins” associated with shellfish and certain pelagic fish);
 - Biological hazards – usually bacteria (and opportunities for bacterial multiplication¹) and viruses;
 - Allergenic hazards such as fish, crustaceans and bivalves to name 3 of the 14 different types of allergen.

Once you have decided what operation is to be looked at, what the potential hazards are you are ready for...

1.2 Conducting a hazard analysis

For each hazard in your list, consider what the possible impact on food safety is by multiplying the severity with the likelihood. Both are scored from 1-3, with 1 representing low, 2 signifying medium and 3 denoting high.

For example: Bones in a fillet of fish.

- Should a customer eat a cooked fillet with bones in they may choke, but they are more likely to realise and spit the bone out. The severity cannot be 1 as there is a risk of injury, but it is not a 3 as their reaction would help to reduce the impact.
- As all the fish in the business are filleted by trained and experienced filleters who check and pin bone each fillet, the likelihood of a bone being in a fillet is low, perhaps this score is a 1.

¹ Most commonly poor handling and storage practices.

But should inexperienced filleters prepare the fish the likelihood is higher, perhaps a 3. The likelihood is scored assuming that no controls² are in place – what would be the worst case scenario.

The significance score for this hazard is therefore $2 \times 3 = 6$, which on a scale of 1 to 9 is medium/high significance.

Continue this for all of the hazards you have identified and then select the most significant hazards.

1.3 Specifying control measures for each hazard

Using the bones example above, suitable control measures for this hazard may be that all filleters are trained and experienced and required to check for bones after filleting. A further control may be that servers randomly check fillets for bones during the sales process and take appropriate action.

And now that you have identified all of the significant hazards you can start to use the decision tree.

Which Decision Tree to use?

There are two types of decision tree in common use, the Campden BRI decision tree and the Codex decision tree.

They are similar to each other, but the Codex decision tree is more likely to require critical control points throughout the business to control hazards. The more up to date approach, as demonstrated by the Campden BRI version of the decision tree recognises the value of procedures and prerequisites in controlling hazards.

For this reason we recommend that the Campden BRI version is used for all HACCP planning by businesses large and small.

Using the Campden BRI Decision Tree

Appendix 3 contains the full Campden BRI³ Decision Tree.

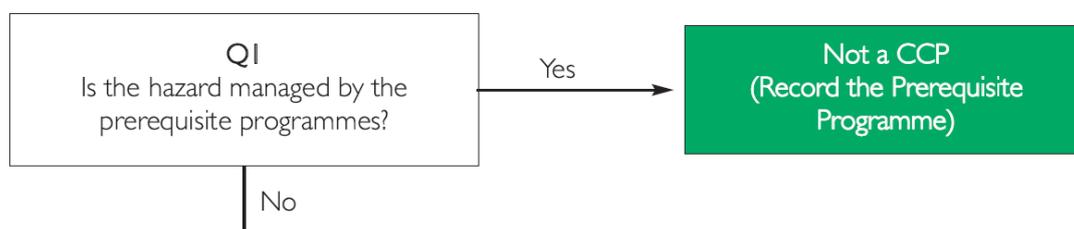
In using the decision tree we selected a significant hazard from our list, along with any prerequisites or possible control measures that may apply.

Q1 of the decision tree asks “Is the hazard managed by the prerequisite programmes?” For each hazard that we identified as relevant to a typical well-run independent fishmonger business, we were able to identify suitable prerequisites that could satisfactorily manage the hazard. Therefore the answer was yes and therefore the hazard did not need a critical control point to be put in place.

² The reaction of the customer to a bone is not a control measure as it is outside the control of the business.

³ Campden BRI ‘HACCP – a practical guide’. Reproduced courtesy of Campden BRI

Figure 5. CCP decision tree



It must be stressed that this is not a “get out of jail free card” as the requirement to manage significant hazards is absolute and the existence and use of effective prerequisites is essential.

This means that all businesses must have in place the documented policies and procedures to back up the hazard assessment, and more importantly these policies and procedures must be part of the fabric of the business and followed by all the staff to which they apply.

If there is a policy on handwashing that “all staff wash their hands whenever they return to the display counter”, then they must do so. If there is a procedure for handwashing then all staff must follow that procedure each and every time.

If they do not then a whole host of cross contamination hazards won't be adequately controlled and your business will not be compliant with your own food safety management system.

In the next section we briefly introduce Official Control Verification (OCV) which is a method used by Environmental Health Officers (EHOs) to:

- a) Agree what is reasonable food safety management for each type of food business;
- b) Ask the food business what food safety management they have in place;
- c) See what food safety management is practiced when the EHO inspects the premises.

From this they can decide if the “business says and does what is considered reasonable”. In terms of OCV this is the “gap analysis and triangulation” process.

As a manager you can use OCV yourself by cross referencing your food business system (FBO FSMS in OCV terms) with your observations of reality (FSMS Implementation in OCV terms). This will let you know if you are indeed doing what you say you should do.

For more information see Appendix 4 (simple guide to OCV) or attend a Seafish training course that applies OCV methodology.

7 Conclusion - Why CCPs are not essential for fishmonger food safety

About this section:

Critical Control Points are steps in the handling and processing of food that are critical to food safety. They are often choke points at which the food processor must take certain steps to render their product safe. This can be a form of corrective action.

For most fishmonger operations we found that CCPs were not needed as the fish and shellfish were handled in such a way that they were always safe and corrective action was not required.

However this is based on our reasonable assumption that a well-run fishmonger will have in place clear policies and written SOPs that ensure food safety is maintained and does not require fixing further down the chain.

One of the first steps in developing this guide for fishmongers was to use the *My HACCP* toolkit to identify what hazards needed to be considered and which of these hazards required a critical control point (CCP) to be implemented. Or to be strictly accurate, which processes within the fishmonger business.

Using the online HACCP Tool – [My HACCP](#), Seafish went through the process of developing a food safety management system based on HACCP and applied this process to a typical small independent fishmonger business.

The *My HACCP* tool is aimed at small food businesses (usually manufacturing) and was chosen for this study as small retail fishmongers usually carry out processes that may be classed as primary processing, rather than simple retail. Those fishmongers that carry out additional, higher care processes are not included in this study and may or may not require a full HACCP Plan.

The *My HACCP* tool was used to apply the “Campden HACCP Decision Tree” to a range of potential hazards in a fishmongers ranging from the presence of bones in fish fillets, to the possible contamination of food by pathogenic bacteria. In each case it was found that the hazard could be adequately controlled using industry standard or bespoke prerequisite programmes and standard operating procedures. The role of these programmes and procedures is comprehensively explained in the Seafish publication (in prep) *Fishmonger Model Guide to Food Safety and Hazard Control*.

In summary:

Prerequisites can include basics such as having a well laid out shop/processing area constructed to facilitate high standards of food hygiene. Adequate and effective staff training and supervision would be another essential prerequisite.

Standard Operating Procedures (SOPs) are detailed written instructions of routine operations. They can include procedures such as handwashing, thermometer calibration or what steps to follow when accepting deliveries of fish and shellfish. SOPs are very useful for training staff because they provide a step by step guide to what is required for all important tasks within the business.

Policies The purpose of a food safety policy would be to state the aims of the business with regard to food safety, who will be responsible and how it will be achieved. The Seafish Guide contains a model general food hygiene policy for a fishmonger.

Using My HACCP

Safer Food Better Business (SFBB) is the usual toolkit used by small food businesses and EHOs (in England and Wales) to investigate and manage food safety risks. There are similar systems available for Northern Ireland and Scotland. However, these systems are not a good fit for fishmongers and SFBB specifically states that it does not apply to fishmongers.

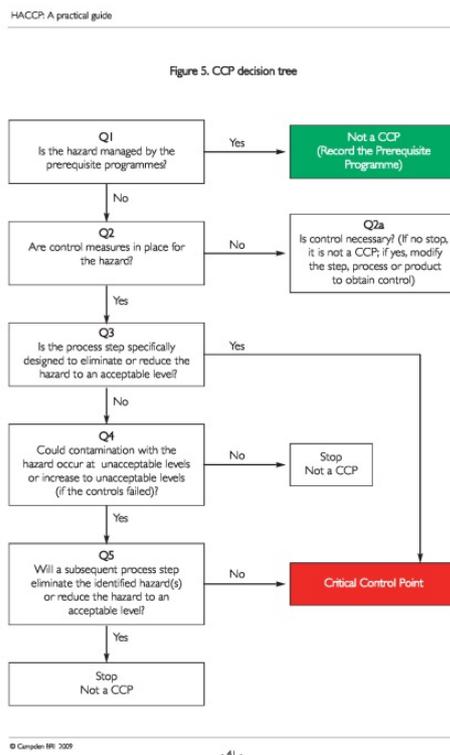
The My HACCP tool however can be applied to almost any food business, including fishmongers. So how did we do this?

Registration online was quickly followed by an online questionnaire that established the name of the company, who is responsible for food safety etc. Almost in effect filling in a short hygiene policy.

Our evolving HACCP plan started with raw material intake and ran through to retail sale to customers. We looked at a range of hazards such as glass, metal and bones (physical hazards), toxins and chemicals (chemical hazards), various pathogenic bacteria (biological hazards) and also allergens such as fish, molluscs and crustaceans (allergenic hazards).

We assumed that the operation had a number (20 to be precise) of standard operating procedures in place to support the prerequisites, and we defined our product description and intended use as chilled and frozen white fish, oil rich fish, shellfish and other seafood products. There followed a number of other sections in which we had to define the *intended use; process flow; potential hazards list; severity list; control measures; CCPs and critical limit* for our model business.

There are other steps in the *My HACCP* process that look at the emerging plan, how it is to be recorded and how it is verified, but with each potential hazard the process stopped at *control measures*. In each case when asked “Is the hazard managed by the prerequisite programmes?” and assuming that reasonable effective programmes are in place, our response was “yes, the hazard is managed”.



The Campden¹ HACCP Decision Tree’s response to this answer is the green box which states “Not a CCP (Record the Prerequisite Programme)”.

Hazard after hazard was evaluated using this decision tree and the result was always the same, namely in a well-run fishmongers business with effective prerequisite programmes and SOPs in place, all of the hazards associated with the handling, processing, display and retail sale of chilled and frozen fish and shellfish are *adequately managed and do not require additional control*.

And in effect, no CCPs mean no HACCP Plan.

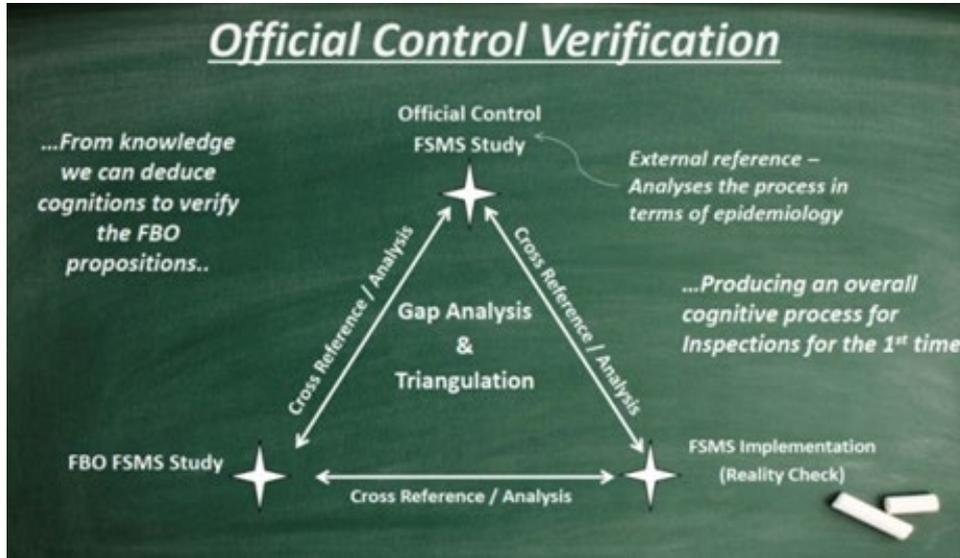
The importance of this outcome is that businesses do not need CCPs and Critical Limits to be set. Nor do they need vigorous monitoring and formal verification of their HACCP Plan. These businesses will still need written policies and procedures to be in place, and will need to keep appropriate records, and to monitor compliance etc.

If the business also carries out a higher care operation such as hot smoking of fish or the production of a fish pate then it is possible that a HACCP Plan with critical limits etc may be needed, but for the average high street independent fishmonger a simpler system can be applied.

Health Check: This study has been carried out by Seafish using an idealised model of a fishmonger business. While every care has been taken to be as close to real situations as possible, only the manager of the food business operation (and their EHO) can make a truly informed decision on the relevance of this approach to any single business case.

¹ Appropriate copyright text from Campden.

Official Control Verification methodology is an approach increasingly adopted by food enforcement inspectors to ensure efficient and accurate assessments of food safety compliance. This Guide may help with OCV as it may contribute to the *Official Control Study* and provide EHOs with an acceptable model for the Gap Analysis and Triangulation process.



The FBO (Fishmonger) Study² and What the EHO finds when they visit make up the base of the OCV pyramid. A simple guide to OCV will be included at a later date in this Guide to Food Safety Management for Fishmongers.

² HACCP Plan or your Food Hygiene Policy based on this Guide.

8a Cross contamination

About this section:

There are four types of contamination and preventing cross contamination in any food business, including a fishmongering business, is vital to maintaining high standards of food safety.

A key component in stopping cross contamination is effective handwashing at the appropriate times, for example between tasks and after going to the toilet. The owner of the business must ensure that effective handwashing forms part of their hygiene policy and that all staff understand and comply with this policy.

Ready to eat products such as cold smoked salmon pose a serious threat to human health if they aren't handled and stored correctly. These products are often referred to as high care products as they aren't cooked prior to being eaten and therefore can be contaminated easily.

Food pests such as rodents and insects cause contamination and must not be allowed to enter your premises. The structure of your building along with the cleanliness can help to combat infestation.

The success of eliminating or reducing the risk of contamination in your business depends upon how effective and practical your controls are and how well your staff understand them.

What is contamination? Well it can be described as: *any substance present in food which should not be there, whether it is harmful or not.*

There are four types of contamination and they are classified as:

Allergens, allergens including nuts or soya.

Bacteria, spoilage bacteria and food poisoning bacteria (pathogen).

Chemicals, toxic chemicals such as cleaning materials.

Physical, foreign bodies, for example glass or hair.

Food poisoning bacteria are found in unprocessed foods such as chicken, but also on our hands. If these bacteria are able to get from these sources onto otherwise uncontaminated food then we have cross contamination. Bacteria from unwashed hands can contaminate food, knives and cutting boards. Any food processed, including fish, with these tools may become contaminated and this contaminated food can contaminate more equipment and other products. Cooked foods are largely free from bacteria; however these foods can become contaminated with food poisoning bacteria, for example by cross contamination.

As cooked foods have very few bacteria, if they become contaminated, the bacteria have no competition for food and space so multiply very rapidly. So, visually, contaminated food may appear to be alright, however they will carry large numbers of food poisoning bacteria. Thus, cross contamination occurs when raw food comes into contact with cooked food. It is therefore advisable to handle raw and cooked foods in separate areas. If they have to be handled in the same area, it must be at different times with the area, equipment and your hands washed thoroughly between tasks. Ideally, different equipment should be used for preparing raw and cooked foods.

Foods that may be eaten after processing without additional heat treatment or cooking are called high risk foods. Any bacteria present will not be destroyed by heating and may cause poisoning. Cold smoked salmon, hot smoked fish/shellfish and live shellfish such as oysters are all classed as high-risk foods. High risk products are also called high care. These ready to eat foods will not be cooked prior to being eaten and can become contaminated so it is vital that they are handled with great care. Areas in food businesses can be referred to as either high care or low risk. If you think of a

fishmonger counter display, it can be divided into low risk (uncooked) and high care (cooked) products. This explains why there must be a physical barrier in between raw and smoked fish on a fish counter.

Contamination often occurs because of a food pest. They can be defined as an animal, bird or insect that is in the wrong place at the wrong time. A person who isn't wearing the correct personal protective clothing or who hasn't washed their hands can also be classed as a food pest.

As well as contaminating food, pests carry disease and damage the fabric of buildings. If you are aware of a pest infestation on your premises, you must contact your local authority. They employ Environmental Health Officers who can provide food businesses, including fishmongers, with free and professional advice.

Pests include rodents (mice and rats), insects (cockroaches, flies and wasps), birds (pigeons, seagulls and sparrows), cats and dogs. Indicators of their presence include droppings, feathers, gnaw marks, hairs and maggots. When these pests come into contact with food or surfaces, they will contaminate them. If you think about where these pests live or where they are present (sewers, refuse collection sites and on the ground), it's easy to appreciate that they can contaminate food when they enter a food business.

In order to eliminate or reduce the risk of contamination, controls must be implemented. These must be:

Effective, so that the contamination is eliminated or reduced to a safe, acceptable level.

Practical, so that controls can be applied to your business in a realistic and sensible way.

Understood, so that appropriate staff are aware of any controls put in place, particularly any for which they are responsible.

Good staff hygiene is an excellent way of preventing contamination. Washing hands after going to the toilet, after handling raw food, after a lunch break and after smoking is a key part of prevention. Staff should wear clean uniforms including hats and hairnets.

Effective cleaning is another way of reducing the likelihood of contamination occurring. A written cleaning programme should be produced, setting out the item to be cleaned, how often, using what material and whom by, to ensure that all parts of the premises are cleaned at proper intervals.

The structure of your premises is also important. Everything must be capable of being kept clean so that the risk of contamination is as low as possible. This applies to all walls, floors, ceilings and all fixtures and fittings in your shop. Flooring, must be capable of being easily cleaned. It should be non-slip and not have any dirt-trapping gaps between itself and the walls. Cracked or chipped tiles harbour dirt easily. Once laid, the floors must be cleaned daily, more often if they demand it. Certainly, anything spilt must be wiped up immediately.

Very similar rules apply for walls. They should be smooth and non-absorbent. Walls should be tough and easy to clean. Tiled walls are not as hygienic as they appear at first, especially if they get cracked or there are missing tiles. Grouting in tiled walls often looks dirty and it is often the case that only the middle of each tile gets washed. Melamine or other hardwearing surfaces would be better and they come in bright, attractive colours too.

You must, so far as you can, stop flies getting in by fitting fly screens to doors and windows. Fit and use insectacutors as well. The lighting in your preparation room should be good enough not to cast shadows so that dirty corners will not stay uncleaned. Fluorescent tubes in food preparation, cooking and serving areas must be protected with shatterproof covers. All your preparation surfaces should ideally be stainless steel. Chipboard surfaces are inadequate because they will let in water and rot.

The storage and disposal of refuse could be one of your biggest problems. If you do not get rid of it properly you will have difficulty controlling pests. You must not allow refuse to accumulate anywhere inside the shop unless it is in a bin with a tight lid. If you put any rubbish out, do not allow it to become

a nuisance to anyone. Make sure that it is kept in a bin with a close-fitting lid. You don't want to upset your neighbours! All food premises should be designed and constructed to prevent the entry and harbouring of rats, mice, insects, birds and other pests. External doors should be self-closing and not be kept open. Drainage should be well maintained and air bricks should be protected with a metal mesh covering. Some food businesses will have a pest control contract with a reputable company.

Temperature control is fundamental to controlling bacterial contamination. This will be covered in the next section.

The 14 allergens which need to be declared are:

- Celery, cereals containing gluten, eggs, milk;
- Fish, crustaceans, molluscs; and
- Lupin, mustard, nuts, peanuts, sesame seeds, soya and sulphur dioxide (sometimes known as sulphites).

For more information consult the Food Standards Agency (www.food.gov.uk) and Food Standards Scotland (www.foodstandards.gov.scot) websites,

14 Allergens

Coming to a food label near you

The way allergens are labelled on prepacked foods is changing because of new regulations. The Food Information Regulation, which comes into force in December 2014, introduces a requirement that food businesses must provide information about the allergenic ingredients used in any food they sell or provide.

There are 14 major allergens which need to be mentioned (either on a label or through provided information such as menus) when they are used as ingredients in a food. Here are the allergens, and some examples of where they can be found:

1 Celery
This includes celery stalks, leaves, seeds and the root called celeriac. You can find celery in celery salt, salads, some meat products, soups and stock cubes.

Cereals containing gluten
Wheat (such as spelt and Khorasan wheat/Kamut), rye, barley and oats is often found in foods containing flour, such as some types of baking powder, batter, breadcrumbs, bread, cakes, couscous, meat products, pasta, pastry, sauces, soups and fried foods which are dusted with flour.

3 Crustaceans
Crabs, lobster, prawns and scampi are crustaceans. Shrimp paste, often used in Thai and south-east Asian curries or salads, is an ingredient to look out for.

Eggs
Eggs are often found in cakes, some meat products, mayonnaise, mousses, pasta, quiche, sauces and pastries or foods brushed or glazed with egg.

5 Fish
You will find this in some fish sauces, pizzas, relishes, salad dressings, stock cubes and Worcestershire sauce.

Lupin
Yes, lupin is a flower, but it's also found in flour! Lupin flour and seeds can be used in some types of bread, pastries and even in pasta.

7 Milk
Milk is a common ingredient in butter, cheese, cream, milk powders and yoghurt. It can also be found in foods brushed or glazed with milk, and in powdered soups and sauces.

Molluscs

These include mussels, land snails, squid and whelks, but can also be commonly found in oyster sauce or as an ingredient in fish stews

9 Mustard
Liquid mustard, mustard powder and mustard seeds fall into this category. This ingredient can also be found in breads, curries, marinades, meat products, salad dressings, sauces and soups.

Nuts

Not to be mistaken with peanuts (which are actually a legume and grow underground), this ingredient refers to nuts which grow on trees, like cashew nuts, almonds and hazelnuts. You can find nuts in breads, biscuits, crackers, desserts, nut powders (often used in Asian curries), stir-fried dishes, ice cream, marzipan (almond paste), nut oils and sauces.

11 Peanuts
Peanuts are actually a legume and grow underground, which is why it's sometimes called a groundnut. Peanuts are often used as an ingredient in biscuits, cakes, curries, desserts, sauces (such as satay sauce), as well as in groundnut oil and peanut flour.

Sesame seeds

These seeds can often be found in bread (sprinkled on hamburger buns for example), breadsticks, houmous, sesame oil and tahini. They are sometimes toasted and used in salads.

13 Soya
Often found in bean curd, edamame beans, miso paste, textured soya protein, soya flour or tofu, soya is a staple ingredient in oriental food. It can also be found in desserts, ice cream, meat products, sauces and vegetarian products.

Sulphur dioxide (sometimes known as sulphites)
This is an ingredient often used in dried fruit such as raisins, dried apricots and prunes. You might also find it in meat products, soft drinks, vegetables as well as in wine and beer. If you have asthma, you have a higher risk of developing a reaction to sulphur dioxide.

14

For more information, visit: food.gov.uk/allergy or nhs.uk/conditions/allergies

Sign up to our allergy alerts on [food.gov.uk/email](mailto:food.gov.uk@email), or follow #AllergyAlert on Twitter and Facebook

Let's keep connected at [food.gov.uk/facebook](https://www.facebook.com/food.gov.uk)

Join our conversation [@food.gov.uk/twitter](https://twitter.com/food.gov.uk)

Watch us on [food.gov.uk/youtube](https://www.youtube.com/food.gov.uk)

8b Temperature control

About this section:

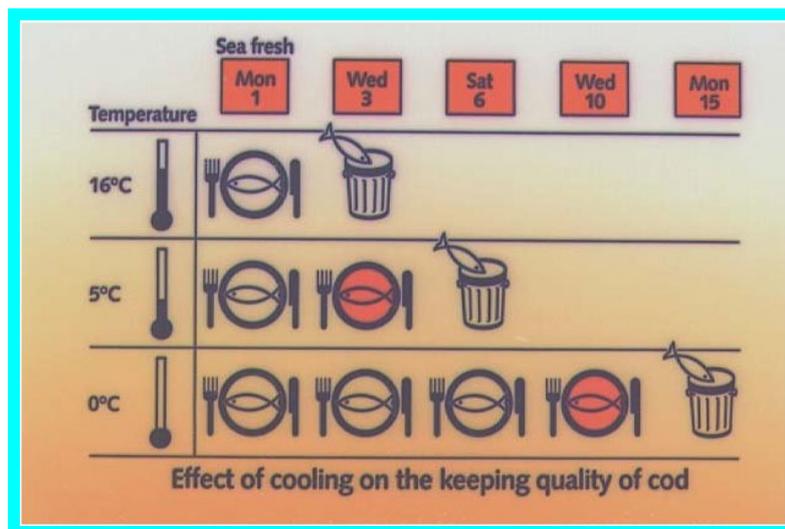
Temperature control is crucial to the success of your business as it impacts on the quality of your food, and also bacterial contamination/multiplication.

If your seafood is stored at the correct temperature it will prolong the quality (shelf life) of your products and this will have a direct effect on the profitability of your business as your wastage levels will be lower.

Staff must have the knowledge of what temperatures raw, ready to eat and frozen products are to be stored at. They must also be trained in how bacterial multiplication can lead to food poisoning and what the consequences are.

Infringements in food hygiene legislation can result in food businesses and individuals being fined and prosecuted.

As stated in the previous section (cross contamination), temperature control is fundamental to controlling bacterial contamination. Many people are aware that temperature control is a vital component of food safety; however they can often forget the role that temperature plays in food quality. The image below shows the effect of cooling on the keeping quality (shelf life) of cod. Maintaining the temperature of raw fish as close to 0°C for as long as possible will help to prolong the shelf life of the product.



The Food Hygiene (England) (Scotland) (Wales) (Northern Ireland) Regulations 2006 are marginally different for each country. They are related to the implementation of food safety legislation and temperature control.

In simple terms, food must be kept hot or cold. In all four countries, hot food must be kept at or above +63°C. For cold food, in England, Wales and Northern Ireland, the food must be kept at or below +8°C.

However, in Scotland, the Regulations state that cold food must be refrigerated in a cool ventilated space. Temperatures between +8°C and +63°C are referred to being in the danger zone. This is when bacteria multiply to dangerous levels in food, which can lead to food poisoning.

You should note that these temperatures do not apply to chilled fish products which should be kept colder, at or close to the temperature of melting ice. Fishery products and other foods can be kept at

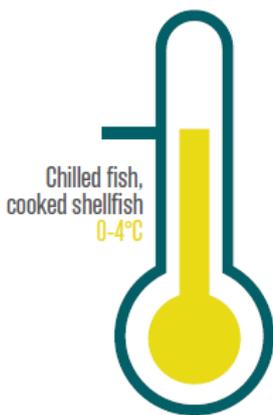
temperatures higher than +8°C for short periods of time while processing etc. Frozen fishery products must be sold at or below -18°C, although they may rise to -15°C for short periods.

There are many consequences of poor temperature control. As indicated above, the quality of your food will diminish if you don't store and display your food at the correct temperature. If your business is selling poor quality food, it will result in less customers and lower sales.

You will also throw away more food due to spoilage. All of these factors will ultimately impact, in a negative manner, on your sales and profits. From a food safety perspective, food might support the multiplication of harmful bacteria or the production of toxins (poisons) and so lead to food poisoning. Owing to contraventions in hygiene legislation, a business can be faced with fines and even costs of legal action.

However, there are benefits to be gained from good temperature control. Due to an increased shelf life due to a lower spoilage rate, there is less waste and more sales which naturally has a positive impact on the profitability of a business. As the business improves its image and reputation, there will be more satisfied customers which again will benefit the business. From a food safety perspective, a business which operates with good temperature controls is complying with food hygiene regulations.

- The following content is taken from the 2020 edition of the Seafood Guide published by Seafish.

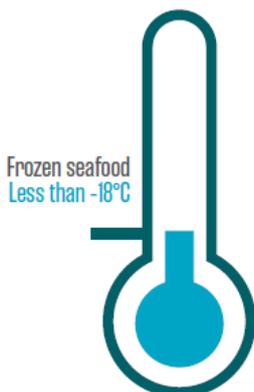
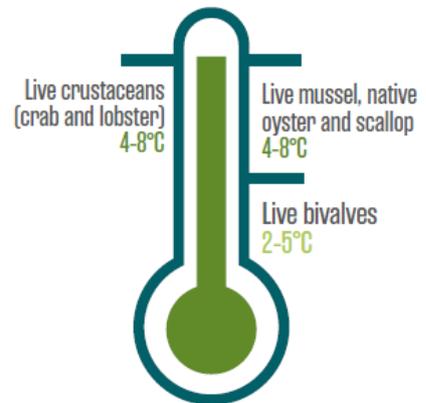


- Seafood starts to spoil as soon as it dies. It is impossible to prevent this natural spoilage process but good temperature control and handling slow down the rate of spoilage and ensure the product is of as good quality as it can possibly be.
- To maintain shelf life and quality, seafood should be constantly stored in chilled conditions through use of either ice or refrigeration. Even a short amount of time at ambient temperature can lower seafood's quality and reduce its shelf life, so this should be avoided or kept to an absolute minimum.
- As a general rule, the lower the temperature the better.

Points to note

- Certain species (including tuna, mackerel and herring) are susceptible to the formation of histamine at elevated temperatures, which can cause issues for consumers. For such species, storage at temperatures lower than 4°C is especially important.

- Humane handling is important for live shellfish. Handle them carefully; do not allow them to dry out and never drop them as this causes physical shock. Ideally, then live shellfish should be stored at consistent temperatures as extreme changes in temperature can cause thermal shock, leading to a greater rate of die-off.



- When storing chilled fish in a refrigerator, cover with plastic film to prevent drying out. Ice can also be used in conjunction with refrigeration to reduce product temperature and maintain shelf life. If using ice, remove excess meltwater periodically so that the fish does not stay in contact with water.

Tuna, salmon and smoked products should not be directly iced. As with all foods, cooked and raw seafood should always be stored separately.

8c Cleaning

About this section:

Cleaning is an important task to be completed in any food business and needs to form part of your food hygiene policy. Your premises and the equipment within it must be bacterially clean which is different from visually clean.

Successful cleaning prevents the build-up of food waste and dirt which reduces the likelihood of food contamination. Staff must be trained in how to correctly use cleaning chemicals in terms of dilution rates and the contact times.

Ensuring that the cleaning is documented provides you with due diligence, which will help you keep on the right side of the law. Each person who cleans a piece of equipment will need to annotate the appropriate part of a cleaning programme whilst a supervisor or manager will be responsible for checking that the cleaning has been performed correctly.

Remember that a clean business will portray a professional image which will help retain existing customers but hopefully attract new ones too!

It is common practice for food businesses to be kept clean and tidy. Indeed, the law requires all food businesses to be kept clean and this includes the equipment inside the food business. The frequency and type of cleaning required will depend upon the food stuffs handled and prepared on the premises. For example, if the business is using high-care foods, the type and frequency of cleaning required will differ to that of a business, for example a fishmonger, which is classified as low-risk.

Before we look at the different types of cleaning in a little bit of detail, we should first clarify what is meant by the term clean. Visually clean means that it is free from any obvious dirt, however it may still have bacteria on it. Bacterially clean means that there are no living bacteria on it. Thus, equipment and surfaces that are correctly disinfected or sanitised should be bacterially clean. But when there are no living organisms present, it is said that the equipment or surface has been sterilised. From a food safety perspective, bacterially clean is the most important.

Naturally, food waste and dirt will occur in a food business. However, the key aspect is to prevent a build-up of these which will act as a risk of contamination to food. Detergents contain surfactants which reduce the surface tension between the food residue, grease or dirt and the surface that is being cleaned. A detergent can penetrate quickly and lift the food residue, grease or dirt from the surface. A disinfectant is used to reduce bacteria to a safe level. It is worth remembering that hot water above +82°C will effectively disinfect equipment. Many food businesses will use a sanitiser, which is a combination of a detergent and a disinfectant, to clean their food surfaces.

So, what are the benefits of cleaning? Firstly, it eliminates food residue and dirt which can lead to bacterial multiplication so the likelihood of food poisoning is greatly reduced. Secondly, it helps to combat the physical contamination of food which assists with keeping customer complaints low. Thirdly, food waste and dirt attract pests so by ensuring that food premises are kept clean prevents an infestation occurring. These three factors all help to maintain a clean image of the food premises which will portray a professional image to your customers which will have a positive impact on your sales and profitability.

Cleaning which is futile can actually have the opposite effect of what a business wants to achieve from cleaning which result in severe hazards occurring. Bacterial contamination can arise if incorrect chemicals are used or the incorrect dilution rate is applied. If food residue is allowed to build up, this can result in bacterial multiplication. Bacteria can also survive if a disinfectant isn't used correctly; for example, the contact time isn't adhered to or the dilution rate is wrong. Chemical contamination can occur when phenol-based disinfectants are used as they can taint food or when rinsing isn't

completed correctly. Physical contamination can take place when faulty cleaning equipment is used or when defective protective clothing is worn.

Ensuring that your building and what is inside it can be cleaned effectively is vital to the success of managing your business. All of your team must be committed to performing their cleaning duties to the highest standard and they must be provided with clear instructions of how to conduct each task with another member of your team checking that the cleaning is carried out correctly. The business owner has an obligation to guarantee that all staff are trained correctly in order to complete their cleaning responsibilities. Staff must also be provided with working equipment and suitable cleaning materials.

Large businesses often employ a contract cleaning company to clean equipment and the premises which usually means that these are covered against theft and damage by the contract cleaning company's insurance policy. This approach also allows staff to focus on their main responsibilities such as preparing food or serving customers and it can provide due diligence with documented cleaning records. However, a badly drawn up contract can result in disputes and as a business owner you don't want this as it will probably cost you time and money to resolve. Indeed, an environmental health officer could issue an emergency prohibition notice if the threat to human health is imminent due to dirty premises and the presence of rodents resulting from poor cleaning practices by the contractor. As an independent fishmonger, the size of your business and the amount of equipment you use means that it will be more practical to have your team of staff cleaning. This is often referred to as in-house cleaning and if done correctly you will have more control over the cleaning function in your business.

Let us look at what you need to consider. Firstly, to provide due diligence, the cleaning that is conducted by your staff must be documented and to do this you must develop a written cleaning programme which is often referred to as a cleaning schedule. You will need to ensure that all parts of the premises are cleaned at the proper intervals, setting out each item to be cleaned, how often, using what cleaning material (detergent, sanitiser or steriliser) along with the dilution and contact time, and whom by. It must also state if any protective clothing such as gloves or goggles are to be worn and if there is a specific day and time when the cleaning must be completed. The programme should be displayed in the premises and copies given to the persons named in it. A named person should be given the responsibility for checking that the programme is adhered to, and that the cleaning is carried out to a satisfactory standard.

Other things to consider when developing a cleaning programme or schedule are:

- some machines may not be cleaned by people under the age of 18;
- give any special instructions that are to be followed when cleaning an item, for instance, special training may be required for dangerous machines or electrical equipment;
- the level of trade on a particular day, for example, weekly tasks should be completed on quieter trading days;
- the material that walls, floors and ceilings are constructed from; and
- if a piece of equipment needs to be dismantled and the type of material that it's made from.

The person responsible for checking that the cleaning has been completed to a satisfactory standard must annotate their findings and document actions taken if the cleaning is sub-standard. However, praise should also be provided for a job well done. Remember that cleaning as you go will support an effective cleaning programme.

8d People, personal hygiene and good handling practices

About this section:

People are the most likely source of contamination in any food business including a fishmongering business so it's important that they maintain high staff standards of personal hygiene to reduce the risk of contamination when handling food.

Regular hand washing at the appropriate times along with keeping finger nails short are essential parts of staff personal hygiene.

Staff must also wear personal protective clothing including a suitable head covering. This will help to make your team look clean and professional. However the main reason for wearing personal protective clothing is to ensure that the food is kept free from contamination.

Your personal hygiene policy must also state that staff are not to wear jewellery including a watch as these are potential sources of physical contamination. Are staff also aware of what they must do and who they must contact if they've been suffering from sickness and diarrhoea? Being a carrier means that a person is carrying a lot more bacteria than normal and they have the potential to ruin your business reputation that you've spent years and money creating.

From the intake of products through to sales with a customer, you and your staff will touch seafood on numerous occasions. At each point along this journey when the seafood is handled, there is a potential for the food to become contaminated, either by food poisoning bacteria or by physical contamination. The most likely source of contamination in any food business, including a fishmongers business, is the staff who handle the food. Our bodies, including our skin, are the perfect place for food poisoning bacteria to live and grow. This is why it is vital to maintain high standards of personal hygiene at all times. A key component of personal hygiene is hand washing and this must be performed correctly and at appropriate occasions. See this [Seafish handwashing video](#).

This means using soap, hot water, a nailbrush and a hygienic form of drying such as using disposable paper towels or hot air. Hands should be wet before the soap is applied to them, to create a good lather. The hands, in between fingers and thumbs and the wrists should be washed. When it is required, under the fingernails and the fingertips should be cleaned with a soft-bristled nailbrush which is clean. Some businesses provide hand creams which contain a substance which kills bacteria. These are well worth using because they protect the hands during frequent washing and help to keep cracks in your skin smooth, reducing the places where bacteria can live.

So now that we've looked at the process of hand washing, we shall now review when hands should be washed. I would hope that everyone washes their hands after using the toilet, whether that is when you are at work or outside of working hours. Another occasion when you should wash your hands is after handling raw food including fish and before handling ready to eat foods including smoked fish and shellfish. This is to prevent cross contamination which we looked at in great detail in the cross contamination section. It goes without saying, that hands should always be washed before handling any food. Other occasions when staff should wash their hands include after a break, after eating food, after smoking and when entering a food preparation area, such as where you prepare your fillets of fish. Naturally, you should also wash your hands after coughing, sneezing or handling money. There will be other occasions when you should wash your hands; however I've highlighted the most important ones.

With regards to fingernails, as well as being kept clean, they should also be kept short. People who wear nail varnish or false fingernails may not be employed as fishmongers as these are potential physical contaminants as well as a bacterial contaminant.

Food handlers, including fishmongers, must wear personal protective clothing whilst at work. The key reason for this is not to keep the member of staff clean but to protect the food from becoming

contaminated. Staff must travel to work in their own clothing then get changed into their suitable work clothes when they arrive at work. Protective clothing must only be worn inside the fishmongers and must be removed prior to using the toilet. A suitable place such as a personal locker should be provided for staff to store their own clothing whilst they are at work and their protective clothing must not be stored in the toilet area. In an ideal world, a different set of clothes should be worn when preparing seafood to when you are serving customers. If this isn't achievable, it is recommended that an apron is worn whilst preparing seafood then removed after the preparation is completed. Clean protective clothing must be worn at the beginning of every shift.

A suitable head covering should be worn by all people entering a food premises. Hair and dandruff do fall out frequently, so it is vital that all people wear a head covering, even if you have very short hair or are bald. Long hair should be tied back and covered with a hairnet and some form of hat. Regular shampooing of the scalp will also help with haircare.

All jewellery including rings and earrings along with watches harbour dirt and bacteria so must not be worn by people working in your business. Like nail varnish or false fingernails, these can all lead to physical and bacterial contamination of food. Also, a customer won't take too kindly to finding an earring in their plaice fillet! Customer complaints can also spread quickly and will harm the reputation of your business.

Smoking, including the use of e-cigarettes, is not permitted in a food business. Frequent hand to mouth contact occurs whilst smoking and so the hand becomes contaminated with bacteria from the mouth. Another potential problem is the possibility of cigarette butts and ash ending up in your seafood.

Cuts, sores, grazes and boils provide the perfect place for bacteria to grow and multiply. The law requires these to be completely covered by a clean, brightly coloured waterproof dressing so if it does fall off, they are easy to see, especially in food.

If you or any of your staff are suffering from vomiting, diarrhoea, have a septic cut, boil, or discharge from their eyes, ears or nose, they should not handle food. When a person is ill, they will be carrying a lot more bacteria than normal. A person who is recovering from food poisoning may still be carrying food poisoning bacteria in their body. Other people who appear to be completely healthy may also be infected with bacteria that cause food poisoning. These types of people are called carriers. This is one of the reasons why it is important to contact your doctor and employer if you suffer from illness after returning from a holiday abroad.

Although you may appear to have recovered, you might still be carrying the bacteria in your gut. The law states that you must inform your employer if you are ill before starting your shift. They may give you a job to do which doesn't involve handling food or they may send you home. You may require medical clearance from your doctor before restarting work or you may return to work at least 48 hours after all symptoms have gone.

Further reading: See this online segment from Seafish's free food hygiene training pack – [people cause problems](#).

8e Management

About this section:

In terms of food safety, managers must be aware of the legislation that affects their fishmongering business. This includes taking all reasonable precautions to ensure that the food sold from the business is safe to eat and that it corresponds to what is stated either on a price ticket for species which are sold as loose or a label for pre-packaged goods.

A pro-active manager will also develop a good working relationship with their environmental health officer and understand what their powers are in terms of what they can and can't do.

The development, maintenance and monitoring of a food safety management system based upon HACCP principles is also the responsibility of management. A manager who understands that people are central to the effectiveness of a food safety management system will be more likely to have an efficient and professional business. Investing in staff training and providing clear guidance will support a well-managed fishmongering business.

The management team within any food business must understand the allergenic, biological, chemical, and physical hazards which are present in their business and the controls that are in place to minimise the likelihood of these occurring (the risk). Managers must know how legislation affects their food business and themselves. This will include the following:

- ensuring that food is safe to eat;
- making sure that food isn't contaminated by adding, removing or treating it erroneously;
- providing adequate welfare facilities for staff;
- supervising, instructing and/or providing food hygiene training to all food handlers which is appropriate to their job role;
- labelling all products correctly to guarantee that customers are provided with accurate information and sold bona fide food.

Part of a manager's accountability requires them to know the role and powers of environmental health officers. These include offering advice and guidance along with issuing a hygiene improvement notice or a hygiene prohibition order. In many parts of the UK, it is mandatory for a food business to display the latest food hygiene rating that has been awarded to their business by the environmental health officer.

A fishmonger manager is responsible for developing, maintaining and monitoring a food safety management system based upon HACCP principles. This means that the food in a fishmongering business must be stored and handled correctly at every stage from being delivered into the shop until it is sold to a customer. This entails precise stock rotation along with precise temperature control which must be adhered to at all times to ensure that the food sold to the paying customers is safe to eat. Delivery records must be kept for traceability purposes and to assure that all species are labelled correctly. Indeed, details about your deliveries, product temperatures, cleaning schedules and the training that has been completed should be recorded as these documents can form part of your due diligence. They allow you to evidence that systems are in operation and support a well-managed and hygienic business. However, it must be stated that although it is important having a paperwork audit trail, it is just as important that the food is actually stored and handled correctly.

The manager needs to guarantee that their premises are designed correctly and equipment is constructed from suitable materials and kept clean and disinfected to minimise the risk of pest infestation. Floors must be capable of being easily cleaned and must not absorb grease which rules out wood. They should be non-slip and not have any dirt-trapping gaps between them and the walls. Like floors, walls should be non-absorbent, tough and easy to clean. All of your preparation surfaces should ideally be stainless steel as it is smooth and impervious.

Quality control checks must also be in place and if additives are used, they must be approved and not exceed the maximum permitted level. An effective system must be in place for withdrawing unsafe food from sale and a process has to be in operation to inform customers if food has been withdrawn or recalled. Hygiene checks should also occur and these can be interconnected to checking that cleaning tasks have been completed to a satisfactory standard.

Whilst owners of businesses invest their time and money into their premises and equipment, people are often overlooked. A proactive manager will:

- provide direction and communicate with their team of people;
- make sure that they are trained and coached correctly;
- supply appropriate protective clothing to staff;
- ensure that washing facilities with clean water and sanitary accommodation are available.

All of these factors will contribute to a motivated workforce who in turn will be more likely to conduct their work duties to a satisfactory standard. By doing so, it will contribute to an efficient, professional and profitable business.

8f Training and staff supervision

About this section:

It is a legal requirement to confirm that all staff have received food safety training to perform their job role to a satisfactory standard. All training should be recorded as this paperwork can form part of an audit trail if required.

Training should be viewed as a long term investment rather than a short term cost with benefits including improvements in staff morale and better rates of staff productivity.

The requirement to train can be for a variety of reasons such as employing a new member of staff, an existing member of staff changing their job role, introducing a new piece of equipment into the business or a change in legislation.

Whether the training is conducted at your business or delivered by a dedicated training provider, you should always follow the training cycle; plan, do, measure and review. This approach should help the individual to get the most out of their training which means that your business should benefit too.

The Food Safety and Hygiene (England) Regulations 2013 Chapter XII state that *“Food business operators are to ensure: that food handlers are supervised, instructed and/or trained in food hygiene matters commensurate with their work activities”*. This training can be a mixture of in-house (on the job) and external (formal training courses). Both types of training should be recorded as these documents can form part of your due diligence in the event of a legal dispute and they also provide traceability.

So what are the reasons for training you and your staff? Well, there are numerous reasons; however some of the main reasons are listed below:

- improve staff morale;
- increase staff retention levels;
- more efficient and more effective workforce;
- better standards in customer service;
- opportunity to capitalise on some positive PR; and
- increase in sales turnover and profits.

Now that we've looked at what some of the reasons are for training, we can now analyse when training needs occur. Different situations can identify that a training need exists. If an accident or a mistake occurs, especially on a regular basis, this will highlight that a training requirement exists. It may be that a member of your team isn't aware of the need to store raw food beneath cooked food in a fridge, thus resulting in a potential cross contamination situation. Certainly, when new staff join your business, there will be lots of training requirements and these can form part of their induction training programme. If staff change their job role, new training opportunities will arise. Your business may receive some verbal or written feedback from your customers which requires some staff training to be conducted. For example, staff may not be washing their hands in between handling raw seafood and ready to eat items. Staff appraisals can also lead to new training prospects.

Changes in legislation occur from time to time and as a business owner you need to keep up to date with these and how they impact on your business. For example, in December 2014, the EU Food Information for Consumers Regulation came into force meaning that all food businesses were required by law to tell customers if any of the main 14 food allergen ingredients were in the food they serve. This meant that staff required training on this topic. Occasionally your business may have a new piece of equipment delivered, for example a set of weighing scales. Again, in this situation, staff will require some training on how to use these correctly. Or, you may decide to sell a new product, for instance live shellfish. This will again result in some dedicated training for your team. Industry

practices also change over time and any changes that you implement must be communicated clearly to your staff with the required standards demonstrated.

So how should training be delivered? In simple terms, you should follow the training cycle which has four key stages; plan, do, measure and review. Whether the training is practical in-house training or participating in an externally taught course, it is best practice to follow these four key stages. Firstly, you will need to plan when to conduct the training? Usually, it is best to organise for the training to occur when there are sufficient staff working, so that your standards in food safety, health & safety and customer service aren't compromised. It may mean that you have to bring an extra person in to work on overtime, but the investment will be worth it in the long term. The next stage is the actual training. This can involve either some practical elements, for example preparing seafood, or it can focus on theory such as attending a formally recognised food safety training course. The trainer should possess the technical knowledge and understanding about the training topic they are to deliver. The training must also be delivered in a professional manner with the trainer asking the learner questions to check their understanding, listening to and answering questions from the trainee, being aware of their body language and using feedback to let student know how they are performing. Other factors including any specific learning requirements must also be considered before the training is delivered. These can include what the first choice of language the learner has and whether they are dyslexic. Following on from the training, you will need some form of measurement to find out how effective the training has been. This could be sales related or measured in terms of wastage levels. Whatever target you adopt, it must be agreed with the learner. Finally, you will review the success of the training. This can be discussed during a formal appraisal when the pupil has an opportunity to discuss the impact of the training on their job role.

Seafish has a network of approved trainers based across the UK who deliver a host of training courses including food hygiene at Introductory, Elementary and Intermediate levels via eLearning, open learning and taught courses. To view the network of Seafish approved trainers, log on to: <https://www.seafish.org/article/onshore-approved-training-providers> and to view details of our food hygiene and other training courses, log on to: <https://www.seafish.org/article/training-courses>

8g Review and revision

About this section:

By having procedures in place and ensuring that staff are building these into their daily routine will help your business to operate in a safe and hygienic manner. These should be checked on a continuous basis and will form part of your review, and where necessary, revision of your management plan.

When anything new is introduced to your business, it must be analysed, with the relevant staff informed of any changes which impact upon their job. Examples will include new pieces of equipment, a new food to be sold or even new legislation.

Customer complaints and 'near misses' should also be reviewed to find out if any procedures require updating or if there is a training requirement.

Remember; don't assume that all staff know that something new has been introduced to your business. Make sure that all staff affected by any changes made in your business are communicated to effectively and if required, make sure that all training is documented.

Having effective and regular procedures in place at your fishmongering business will provide you with the bedrock to managing a safe and hygienic operation. However, the continued success of your business depends upon the on-going monitoring of food safety performance which includes the review and revision of your management plan.

This maintenance involves the verification and updating, where appropriate, of procedures. In effect, it is an ongoing audit of your procedures. There are various situations when you will need to review your management plan and these include the following:

- new equipment/technologies introduced to the business;
- new food legislation which impacts upon your business;
- 'near miss' situations;
- customer complaints;
- new types of food sold;
- staff starting a new job role (includes new starters and existing staff changing jobs).

So, let's start with new equipment. There may be an occasion when you purchase a new set of temperature probes for monitoring the temperature of products delivered, stored, prepared and sold from your shop. Staff will need to be trained on how to use the new equipment correctly including how to calibrate it. As with all training, it will need to be documented.

Secondly, you will need to keep up to date with any new food legislation that impacts upon your business. Your environmental health officer should be able to support you with this and you can also subscribe to news and alerts on the Food Standards Agency website at:

<https://www.food.gov.uk/news-alerts/signin> .

For example, in December 2014, the EU Food Information for Consumers Regulation was introduced which requires all food businesses to provide information to their customers about the 14 allergens contained in any of the foods that they sell.

Another factor that could trigger a review is a 'near miss' situation, such as not cleaning the scales in-between weighing raw and ready to eat fish. This would lead to cross contamination of the ready to eat fish. It may be that the ready to eat fish isn't actually sold to a customer because another member of staff notices what has occurred before the goods are sold to them. In this instance, the ready to eat fish would be recorded as wastage and re-training of the person who'd made the mistake would have to take place and be suitably recorded.

If your business receives a customer complaint, it needs to be taken seriously. A situation that could arise is that a customer returns a fillet of fish that they've bought from your shop and it contains a piece of plastic. Maybe the plastic has come from some packaging? If so, you would need to review your goods in delivery procedures and check the packaging material is suitable for the food that you're purchasing. If a change is made, you will need to update your records.

You may decide to sell some new products in your shop, for example some sauces to accompany some of the fish species that you sell. If these sauces contain one of the 14 listed allergens such as nuts, you will need to amend your documents accordingly and inform your customers.

Naturally, when you employ a new member of staff or an existing member of staff changes job roles, this will result in training needs being identified. As mentioned in the previous chapter, Training and staff supervision, *"Food business operators are to ensure: that food handlers are supervised, instructed and/or trained in food hygiene matters commensurate with their work activities"*.

This means that all training must be conducted appropriately, whether it is internal or external, and it must be recorded after it has been provided and the learner has understood what is required of them and that they are seen performing that specific part of their job to the required standard.

In summary, your written management plan must be up to date and explain how the food sold from your fishmongers is safe for human consumption.

Additional resources: Seafish has a free online food hygiene training programme that is available here - <https://www.seafish.org/article/food-hygiene-online-learning>

8h Developing Standard Operating Procedures

About this section:

Standard Operating Procedures (SOPs) provide benefits to any business that uses them effectively. To be effective SOPs need to be kept up to date. The initial development of SOPs could be time consuming, but the long term return on that investment is well worth the effort.

SOPs can ensure consistency, help with staff training and improve compliance with company standards and food safety regulations.

See the appendices for a list of the most common SOPs for fishmongers.

If you need additional guidance on how to write SOPs then there are many useful resources available on the internet.

Standard Operating procedures (SOPs) are useful documents for both simple and complex operations, and are not limited to food hygiene related activities. SOPs can be set out in different ways, follow different styles and have different levels of detail. The SOPs shown in this guide are intended for fishmongering operations and are we feel at the right level of detail.

Each of our SOPs should answer five basic questions.

- What: is the operation that is controlled by the SOP?
- Why: is this operation controlled? For what outcome?
- Who: is responsible for carrying out the operation. Who will review or manage the SOP?
- When: was this SOP written, when will it be used? When does it apply?
- How: will the operation be carried out?

There will be other questions that may be answered, but these are the common ones.

SOP Design

As an example let's consider hand washing again. The following contents would be required in a hand washing SOP.

Title: Hand washing SOP

Policy: All employees will follow good personal hygiene practices to ensure food safety is maintained. This includes hand washing.

Managed by: This SOP is managed by the [insert name or title].

Applies to: All staff, including non-food handlers.

Date of SOP: This SOP is valid from xx.xxxx.xxxx and remains valid until replaced or updated.

Procedure: Food handlers and non-food handlers are expected to wash their hands when required, using the company approved method. Hands must be washed after breaks, before entering the food handling area, between handling high care and low risk products, whenever hands may have become contaminated, and AT ALL other times when it is reasonable to do so.

Hand wash stations and materials have been provided for staff to use for hand washing. Sinks and taps provided for other purposes should not be used for hand washing.

The method approved by the company is as follows:

- Rinse hands under clean, warm, running water.
- Apply soap from the dispenser.
- Rub hands together vigorously for 10 to 15 seconds while ensuring that soil is removed from under the fingernails and from the surfaces of the hands and wrists.
- Thoroughly rinse hands under clean, running water.
- Thoroughly dry using single-use disposable towels (food prep area) or the hot air dryer (toilets).

Why: Effective hand washing prevents the transfer of contamination from product to product, and reduces the risk of contamination from other sources. Effective hand washing by food handlers is a condition of employment.

NB: Other more detailed methods are used in some SOPs.

Appendix 1: What are typical and atypical hazards, what is addressed by this Guide?

The operations a typical fishmonger undertakes are extensive, but with care and suitable controls in place they do not present a risk to human health.

Here is our list of activities that we consider typical and which fall within the scope of this guide:

- Receipt of fish, shellfish (inc live bivalve molluscs) and other consumables
- Chilled and frozen storage of fish and shellfish
- Storage of other consumables (packaging for example)
- Stock rotation
- Quality assessment
- Temperature control, monitoring and recording
- Hand preparation of fish
- Hand preparation of raw shellfish
- Hand preparation of cooked shellfish¹, but not the cooking of shellfish
- Display of fish and shellfish for sale
- Selling fish and shellfish including weighing, wrapping and taking payments
- Cleaning, clean as you go and deep cleaning
- Handling and use of cleaning and other chemicals
- Personal hygiene and handling of fish and shellfish
- Disposal of waste

There are other low risk processes and activities that are not on our list that are covered by this guide. If in doubt then consult with your local EHO or an organisation such as the National federation of Fishmongers or Seafish.

Higher Care Activities

This is a list of activities that are specifically excluded from this guide. NB: It is not an exhaustive list.

- Cooking of shellfish
- Smoking fish and shellfish
- Production of high care products such as a seafood pâté
- Sushi production

There are other activities and processes that some fishmongers carry out that will also require a more in-depth study and perhaps even Critical Control Points (CCPs) to manage. If that is the case then the business probably requires a formal HACCP Plan.

¹ Dressed crab for example, provided it is for almost immediate sale. If the crab is overwrapped and displayed for any appreciable time then the business needs to consider if this presents an additional food safety risk.

Appendix 2: List of prerequisites and SOPs

The following list of SOPs is not the only prerequisites that your business should have in place to ensure the safer running of your business. We'll start with four key policies / prerequisites or preconditions needed for any well run fishmonger business.

- A food quality and hygiene policy, signed on behalf of the company.
- Well laid out, constructed and maintained premises.
- Suitable equipment for the handling, storage, display and processing of fish and shellfish.
- Staff who are competent, trained and well managed.

Other policies that you should have in place are:

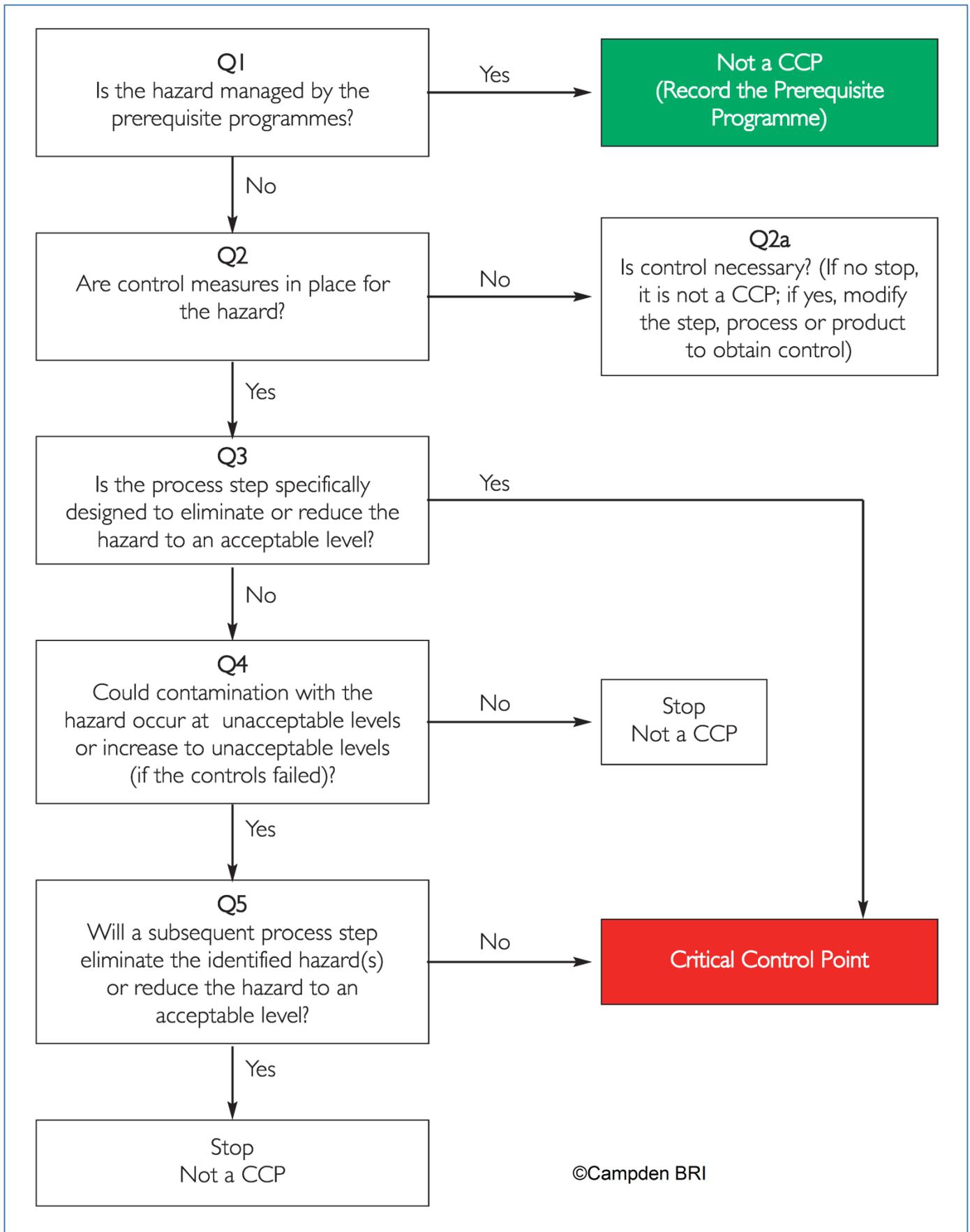
1. Approved suppliers policy – how do you select and approve your suppliers?
2. Staff training policy – how do you ensure all staff (including managers) are “trained commensurate with their work activities”?
3. Personal hygiene and food handler’s fitness for work policy – how do you define acceptable standards of personal hygiene and what rules do you have in place re illness and fitness for work? This policy will be supported by one or more procedures that cover:
 - a. Hand washing
 - b. Hygiene clothing
 - c. Sickness reporting
 - d. Return to work
 - e. Etc.

Once these key prerequisite policies are in place, you can use the following SOPs to ensure that you do what is supposed to be done, in the way it is supposed to be done.

Minimal list of policies, and SOPs for a typical fishmonger business

- i. Contingency plans in case of equipment breakdown. Everything from thermometer failure to the chiller not working/
- ii. Equipment calibration. Scales, thermometers etc.
- iii. Water and ice sampling process. Water must be potable, ice must be safe to use. How do you ensure this?
- iv. Cleaning SOP(s). Effective, planned cleaning and disinfection and the use of cleaning schedules to ensure that cleaning is effective. How do you monitor that cleaning is effective?
- v. Procedures for integrated pest management will include checks for infestation, procedures to follow and perhaps a policy on use of outside contractors.
- vi. Stock rotation procedures.
- vii. Effective waste management procedures.
- viii. Labelling, traceability and recall procedures
- ix. Customer complaint register and investigation procedure.
- x. Temperature control. How, when and by whom are temperature checks carried out? How recorded and what to do in case of a problem
- xi. Glass, wood and hard plastic policy and the procedures to follow should there be an issue.
- xii. Allergen control policy and procedure.

Appendix 3: Campden Decision Tree



Appendix 4: Official Control Verification (OCV)/primer guide

The OCV/primer guide is not yet available. When it is ready for publication it will be called a *Guide to Food Business Organisational Control and Verification* or FBOCV.

We expect this short guide to be available during late spring 2020.

For more information please contact onshore@seafish.co.uk

