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Before you get started on your document, please take a few seconds to read this first page to find out what other free resources are available from the Seafood Training Academy and Seafish.

Seafish are about to publish/have published a brand new Guide to Seafood. For some time after its launch, the new seafood guide will only be available as a high quality printed publication from Seafish in Grimsby or Edinburgh. Watch out for news on the launch later this year (2013) to find out how you can purchase your copy.

Qualifications in fish and shellfish

There are new qualifications for managers, supervisors and others in all forms of fish and shellfish businesses, from shellfish companies through to fish and chip shops.

To find out more start here with these information [leaflets](#).

Free videos, free learner workbooks and resources.

These are the kinds of support that Seafish and the Seafood Training Academy will make available to help apprentices and others get the best out of the new fish and shellfish qualifications.

To access 100+ free fish and shellfish video programmes produced by Seafish – look at Seafish’s youtube channel – [seafishtheauthority](#).

The Seafood Training Academy online Library is the place to go for downloads of documents, Library guides, study guides etc.

Have a cruise around the [Seafood Academy](#) site – you’ll be surprised at what you can find there, and it’s all free.

Thank you for taking the time to read this, and I hope you enjoy the rest of your Seafood Guide.

Lee Cooper
Seafish and the Seafood Training Academy.

General Guide to an Introduction to Food Hygiene and Health and Safety in Fish Frying.

This will help to explain what flexible training is all about. It will help you to make best use of your flexible training module.

WHAT'S SO GOOD ABOUT FLEXIBLE LEARNING?

Flexible learning gives you the freedom to choose.

You study-

- What you like;
- Where you like;
- When you like;
- At a pace to suit you.

You can pick the subjects you want. You don't have to be in a certain classroom at a certain time. You won't be bored because the teaching is too slow, or lost because it's too fast.

You seldom need any qualifications before you are allowed to study.

All this freedom lets you fit your studying into your daily routine.

The best thing about it for most people, is that they can study without taking valuable time off work.

THINGS YOU SHOULD KNOW ABOUT YOUR MODULES

What is a module?

A module is the name we have given to a study package. It will have a printed text.

Each module will be divided into segments. You could think of each segment as a lesson. Each segment has a short introduction and a series of aims.

The Fish Frying Skills training materials consist of two modules, which are the Introduction to Fish Frying Skills module and the Introduction to Food Hygiene and Health & Safety in Fish Frying module.

These materials can be used to provide some of the underpinning knowledge for the Fish Frying Skills qualification awarded by Seafish and The National Federation of Fish Friers.

EXERCISES

At the end of each segment there are a series of exercises for you to complete. These are included to help you with your learning and development. Completion of these exercises will assist you in gaining confidence and will also help you to complete the assessment process.

Upon successful completion of the exercises, you should sign and date in the space provided. This will act as evidence that you have read through the segments and completed the exercises.

You must have **ALL** exercises in your modules signed off, dated and available for your assessor to look at on the day of your assessment. Failure to do so could jeopardise the outcome of your assessment.

HELP IF YOU GET STUCK

At the time of obtaining your module you will be told of any support which can be arranged.

This might be through one of the following:

- Telephone;
- Face to face meeting;
- Letter.

HINTS ON STUDYING

When?

Try to get into a regular study routine. Set aside times for study but be ready to give and take a bit. Miss one of your planned sessions if you must, but try to make it up later.

Set yourself realistic targets such as 'I will finish segments one and two by this weekend' and stick to them!

Grab the chance to study at odd moments. You'll be amazed how much you can learn in fifteen minutes. It's difficult for the average person to really concentrate for more than twenty minutes at a time anyway. A word of warning – don't think you can learn anywhere. You need to be able to concentrate, there are often distractions which prevent this.

How?

- Time spent just reading a module is not the same as time spent learning.
- You must become involved, the best learning happens when you're active, e.g. completing the exercises and making notes.
- Don't study for too long without a break.

This module will remind you of suitable places to stop for a while, but if you need a break earlier, take one. It's entirely up to you.

Where?

Try to find somewhere where you will not be distracted. Almost anywhere will do. It all depends on how you are placed at home and at work. Don't forget your local library.

The secret is, **be flexible**. All you need is somewhere where you can get on with it and not be disturbed.

Carry your module with you when you can. Try to find gaps in your normal routine when you could do some useful work.

Now that you've decided to have a go, **stick with it!** Don't give up. Most people find studying hard at times, this is quite natural. It is also quite natural to need help with parts that you find especially difficult. Don't be afraid to ask for help. I'm sure that you'll find it worthwhile.

ASSESSMENT

Once you have read the two modules, (Introduction to Fish Frying Skills, Introduction to Food Hygiene and Health & Safety in Fish Frying), completed all of the exercises and signed them off, you should be ready to complete your assessment.

An assessor will arrange a time and a date to come and assess you at your place of work. The assessment will consist of a multiple choice exam paper, practical tasks and answering questions asked by the assessor.

Upon successful completion, a jointly branded (Seafish and the National Federation of Fish Friers) certificate will be awarded to the candidate.

Segment One – Food Hygiene Principles

INTRODUCTION

Any successful food business needs to have excellent food hygiene standards. If you don't, then the consequences can be dramatic. They could include food poisoning, a loss of customers and even fines and imprisonment.

Food safety is all about keeping food free from contamination and therefore protecting your customer's health.

This module will introduce the main principles of food hygiene and cleanliness essential in any food establishment, including the one that you work in.

AIMS OF THE SEGMENT

By the end of this segment you'll be able to:

- State how the Food Hygiene Legislation affects fried fish shops;
- Know the importance of personal hygiene;
- Outline why cleaning and disinfection is important;
- List the basic principles of HACCP (Hazard Analysis and Critical Control Points);
- Understand the importance of looking after your frying range;
- Explain the correct procedures for the storage and disposal of refuse.

FOOD HYGIENE LEGISLATION

The Food Hygiene Legislation, which applies to fried fish shops, lays down rules about:

- Personal hygiene;
- The building;
- The preparation areas;
- Storage, disposal of refuse and pest control;
- Equipment;
- Wrapping food;
- Temperature control (see segment two of this workbook).

PERSONAL HYGIENE

The most important part of hygiene is **you!** This is referred to as **personal hygiene**.

Any one who handles food can obey all the rules about the shop, storage and presentation and still break the rules themselves.

Personal cleanliness and hygiene are absolutely vital to the safe running of your business, in order to protect food from contamination.

- Food handlers must keep themselves and their clothes clean, to protect food from contamination.
- Never wear outdoor clothes to work in the shop.
- Uniforms should be laundered regularly (claim it against your tax!).
- Any cuts and grazes should be covered up with a coloured (typically blue or green) waterproof dressing immediately.
- You should keep your hands away from your mouth **and** your hair when serving food.
- Fingernails should be kept short.

- Employees should inform their manager as soon as possible if either themselves or their immediate family are suffering from a stomach upset, vomiting, diarrhoea (common symptoms of food poisoning) or a skin complaint.

If you or a member of your staff are suffering or recovering from a bout of food poisoning then you must not handle food. Some food borne diseases must be notified to your Environmental Health Officer (EHO) and in many cases you will need a doctor's clearance note before returning to work. For more information, speak to your EHO.

Even if you have a common cold or a cough you should be wary of handling food. Utmost care should be taken in these circumstances and it's better if you stay away altogether.

All the areas away from the main food areas must also be kept clean.

Wash rooms and W.C.s should be clean and in good working order. They should be clearly marked and you should put up a notice telling people to wash their hands.

Under the Food Safety (General Food Hygiene) Regulations 1995 you must provide wash basins, soap and some means to hygienically dry hands. Everyone serving or selling food must obey these rules scrupulously.

Any other rules?

No pets, no licking fingers, no playing with hair (this should be tied back or under a hat and a hairnet anyway) and no handling food directly with your hands. As you are a food handler, you shouldn't wear a watch or jewellery (except a wedding band) as these items can trap bacteria, which can then multiply. Remember that personal hygiene is **your** responsibility. You should look clean and smell clean! It's important that when you're presenting food to a customer, they feel confident in your hygiene practices.

It is important that your shop is safe and hygienic. Don't forget that **a dirty shop could mean that you're out of business** - either because your customers are ill and can't come back or because they are unimpressed and won't come back, or because the EHO has closed you down!

THE BUILDING

First of all, everything about the building must be suitable for a place which comes into contact with food. 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.

How would this affect you practically?

It means that all your surfaces must be suitable.

Flooring, for instance, must be capable of being easily cleaned and must also not absorb grease. (This rules out wooden floors.)

It should be non-slip and not have any dirt-trapping gaps between itself and the walls. Any flooring that has been stuck down is not really suitable and the wearing of stilettos demands something tough. (Cracked or chipped tiles harbour dirt easily.) Quarry tiles or terrazzo is really the best floor covering. Once laid, the floors must be cleaned daily (more often if they demand it). Certainly anything spilt must be wiped up immediately. This includes chips that form a nice 'skateboard' under your shoes!

What about **walls**?

Very similar rules are laid down for walls. They should be smooth and non-absorbent. Walls should be tough and easy to clean. Tiled walls are not so 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.

By now, you should be getting the message that tough, unbroken surfaces are the best. This also applies to **ceilings**. Who wants to see a dirty stained ceiling while they're waiting for their chips to cook?

One of the biggest hazards in your shop will be **FIRE**. You can help to prevent a fire really getting hold by making sure that your floors, walls and ceilings are **fire resistant**. This also applies to work surfaces.

Now that your shop is capable of being really clean, you can safely look at your **lighting**. Basically, your lighting should also highlight those little corners that collect dirt because they are often in shadow. Fluorescent tubes must be kept clean and covered with diffusers. This is



relevant to preparation, cooking and serving areas.

What else is covered by the regulations? All your service areas must be tough and easily cleaned. Again **FIRE** must be considered as a likely hazard Melamine or stainless steel are the best materials, the latter being the hardest wearing and therefore would look better for longer.

Any shelves and surfaces that are used to store food and equipment should be tough and practical. Anything that absorbs water or grease is out.

It should go without saying that all your **equipment** and **utensils** should be in a good state of repair and anything cracked or damaged should be thrown away. Damaged equipment can be dirty, rusty or have sharp edges that should never get near food or people.

PREPARATION AREAS

All these rules of course, apply to your preparation areas.

You must not give dirt a chance to collect in any cracks in your walls, floors, ceilings or surfaces. Think about where you prepare food.

Is your preparation area as clean and hygienic as it should be?

- The area should be well ventilated by either extraction fans or opening windows.
- You must, so far as you can, stop flies getting in by fitting fly screens to doors and windows. Fit and use insectocutors 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 of stainless steel. Chipboard surfaces are inadequate because they will let in water and rot.

If you store food in your preparation area you must make sure that it is protected from vermin. Flour, therefore, should be stored in a stainless steel bin and the lid should fit tightly.

You should not store potatoes in your preparation area. They should be stored on pallets in a special area. Make sure that potatoes are kept well away from the walls, and, of course, the room must be spotless.

STORAGE, DISPOSAL OF REFUSE AND PEST CONTROL

One of your biggest problems could be the **storage and disposal of refuse**. 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. You don't want to upset your neighbours!

Pest control is also important in your relations with the neighbours and, of course, with the Environmental Health Officers!

Pest control should be an ongoing process. Never regard it as complete.

All food premises should be designed and constructed to prevent the entry and harbouring of rats, mice, insects, birds and other pests.

- The gaps between door and floor should be as small as possible.
- External doors should be self-closing and not be kept open.
- All opening windows should be fitted with fly screens, which can be opened or removed for cleaning.
- Gaps where service pipes pass *through* walls, floors or ceilings should be filled in.
- Drainage should be well maintained.
- Air bricks should be protected with a metal mesh covering.
- Roof spaces and under-drawings should be capable of being inspected.
- Water tanks should be protected against contamination.
- Ultra-violet insectocutors should be installed to kill flying insects. They should be appropriately sited as per manufacturer's recommendations and well maintained.¹

To avoid attracting or allowing pests into premises:

¹ These are most effective when switched on at night. They should be emptied on a regular basis, perhaps every morning during the summer.

- Store all food waste in metal bins fitted with close fitting lids. Lockable bins may be necessary to prevent interference;
- Provide a good, hard standing for refuse bins, which can be cleaned and disinfected regularly;
- Clean up immediately any food which has been spilt;
- Store all food in rodent-proof containers;
- Store food away from walls to allow easy inspection and cleaning and to reduce harbouring of dirt;
- Inspect incoming food for signs of infestation.

It is recommended that a pest control contract be taken out with a reputable company.

Pets must not be allowed into food rooms. They pose a serious risk of contamination.

What else does Food Hygiene Legislation tell us?

- There must be an adequate supply of clean, wholesome water.
- Sinks must be provided for washing food and equipment.
- There must be a separate sink for hand washing, complete with nail brush kept in an anti-bacterial solution, soap and suitable hand drying arrangements.



- Food and food handling equipment should be washed in separate sinks.
- Your sinks should have smooth, easily cleaned surfaces. Scratches trap dirt.
- Hot and cold water must be provided for preparation areas and for W.C.s.

Have a look around your service, preparation and storage areas. Do they comply with Food Hygiene Legislation? Are there any holes that will let mice or cockroaches in? Are your work surfaces, floors and walls tough and easy to clean? If they are, you have nothing to fear. If

they are not, then bring them up to the required standard. The image of fish and chips is changing. Today customers expect a light, bright and clean atmosphere.

Make it your business to provide it!

Now we shall look at your equipment, wrapping and storing food and personal hygiene.

THE EQUIPMENT

Naturally, all your equipment is going to get greasy; so it's important that you take special care with it.

Rumblers/peelers and chippers must be cleaned every day to avoid a build up of waste matter. All small cooking utensils must be kept clean as part of a regular routine to ensure that your shop is fit to prepare food in.

The **range** is probably the biggest hazard as far as air pollution is concerned.

If it's a newly installed range you should have your flue outlet approved by the Local Authority.

It is important that your flue outlet doesn't bother your neighbours or the passing public. If you have your range connected to an existing brick chimney then you must have a flue liner and the terminal height must be well above nuisance level. You don't want your neighbours getting the full blast of your waste product!

If you have a gas range, it must conform to approved Gas Council recommendations and carry a 'CE' certification plate if the range was made after 1996.

Gas is something that the amateurs must never tamper with, so **call in a CORGI registered engineer with a COMCAT 4 qualification every time.**

To reduce the risk of fire in your range you should have **separate ducts** leading into a sump box. The fat deposited in this should be regularly cleaned out in accordance with your insurance warranty. An electric fan must be coupled up to the sump box to cope with the fumes. Ducts in your equipment should be cleaned with hot water and a neutral detergent or steriliser.

It is recommended that at least three times a year you should empty your pans (pick a slack period) and then fill them with hot water and washing soda. You may need to do this more frequently if you do not look after your frying media.

If you boil the soda solution for a couple of hours you'll find all the deposits of fat break down. You must ensure that you thoroughly rinse out every last trace of cleaning solution before re-filling with your frying media. **The cleanliness of your range is absolutely vital in preparing food.** Your hygiene standards must be of the highest order. Otherwise you risk the health of your customers and that's bad for business.

WRAPPING FOOD

Having taken the trouble to cook your food in a hygienic and palatable manner, it would be a shame to spoil it at the wrapping stage.

Food must not be carried in any container together with any other article that might contaminate it - this is what the Law says!

Whether you are using containers or wrapping material, it is important that they are fit for the purpose and help to maintain the quality of your finished product. Not only is it important to buy the right materials for the job, it is equally important that they are stored correctly after delivery to your shop. Ideally you will have regular deliveries of wrapping material rather than ordering a years supply at once! The storage conditions for wrapping material are similar to potatoes: dry, cool, free from risk of pests or infestation.



Anything else? On your counter you will probably have salt, vinegar and sauces. Nothing looks worse than dirty bottles, so do make sure that these are cleaned regularly. Your wooden forks must be in a clean container and not allowed to gather grease or dust. Think about how you like your food presented. Offer nothing less than this to your customers.

HAZARD ANALYSIS AND CRITICAL CONTROL POINTS - HACCP

How do I start to identify hazards?

You must identify all potential hazards and decide which are critical for food safety. If no major hazards exist, the analysis can simply be based upon your own judgement, with no need for specialist skills or complicated techniques, or you could bring in a specialist to do this for you.²

Whichever method you choose, it should be systematic and should take into account:

- **all potential hazards;**
- **all aspects of your food business operation;**
- **your actual working procedures and conditions.**

You may find it helpful to draw a flow diagram of your operation from purchase of ingredients, through to the sale or service of the food. Food hazards can then be identified at each step and any necessary controls put in place.

Many food manufacturers and 'high risk' food businesses may prefer a more structured system, using written records of hazard analysis to set up effective controls. Organisations such as Seafish and trade associations (National Federation of Fish Friers) can give further advice themselves, or advise where to get help, as will your Environmental Health Officer.

Types of Hazard

There are essentially three categories of food hazard; microbiological, chemical and physical.

- **Microbiological**
 - Could harmful bacteria be present in or on the food (e.g. raw meat)?
 - Could foods, particularly ready-to-eat foods, become contaminated?
 - Could harmful bacteria grow to dangerous levels in the food?
 - Could harmful bacteria survive a process, like cooking, meant to destroy them?

Bacteria need the following to multiply: a food source, moisture, warmth and time.
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- **Chemical**

² Seafish, your local Group Training Association or EHO can advise on a suitable specialist.

- Could toxic chemicals (e.g. cleaning chemicals) get into the food?

- **Physical**

- Could glass, hair or (parts of) pests get into the food?

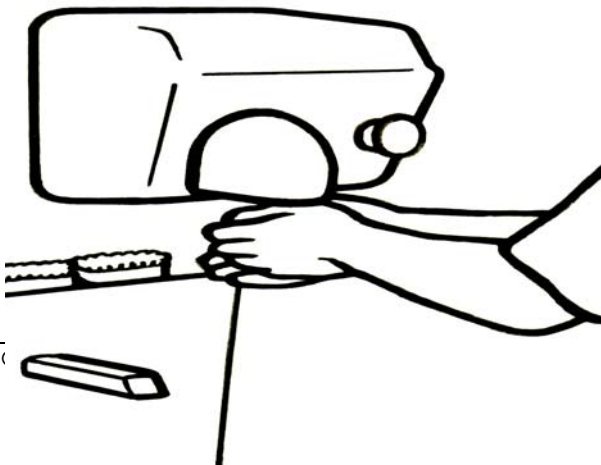
Introducing Controls

When considering controls, remember:

- **They must be effective.** The controls should either completely eliminate the hazard or reduce it to a safe, acceptable level;
- **They should be practical.** Try to ensure that controls can be applied to your business in a realistic and sensible way. You could change either the nature of the control or the operation;
- **They should be understood.** You should tell appropriate staff about the importance of any controls in place, particularly any for which they are responsible.

Some examples of possible controls are:

- buying supplies from reputable suppliers;
- checks on raw materials;
- proper stock rotation of food and ingredients;
- separating different types of food (raw and cooked) to prevent cross-contamination;
- using foods within date marks;
- food temperature holding controls – i.e. during display/storage;
- good staff hygiene;



- hats, hairnets and clean uniforms;
- additional food hygiene training;³
- review training needs as appropriate;
- effective cleaning routines;
- pest control.

You may not have direct control over all potential food hazards. For example, your supplier may not initially be responsible for the safety of the raw material. However, you can help by specifying a safe chill temperature at which the raw material should be supplied. Remember, once you have accepted any materials, it is your responsibility to ensure that they are safe.

In identifying appropriate controls, consider whether you have done all the things the Food Hygiene Legislation requires. Are there generally accepted industry standards in place?

CLEANING AND DISINFECTION

To ensure that all parts of the premises are cleaned at the proper intervals, a written cleaning programme should be produced, setting out the item to be cleaned, how often, using what material and whom by. 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 the cleaning carried out to a satisfactory standard.

The following should be regarded as the minimum frequency for cleaning:

Floors	daily and should be in a clean state at the end of the working day
Work surfaces	after each use
Equipment, utensils	after each use
Shelves, cupboards	cleared weekly and cleaned
Machinery	after each day's use and between



³ Such as Seafish's Foundation Food Hygiene courses

different products

Walls and ceilings as often as necessary, some areas may need daily cleaning

Toilets daily

Food contact surfaces and fridge handles should be disinfected on a regular basis to prevent the spread of bacteria.

How to write a Cleaning Schedule⁴

- Describe the item or part of the structure that is to be cleaned.
- Decide how often it will need to be cleaned. Some things will need to be cleaned more often than others are. Some machines, for example, may need cleaning each time they are used. **Some machines may not be cleaned by people under the age of 18.**
- Describe the way in which the item is to be cleaned and the equipment and materials to be used for cleaning.
- Stipulate the detergent, steriliser, or other cleaning agent to be used and the dilution in which it is to be used.
- Give any special instructions that are to be followed when cleaning the item. For instance, for dangerous machines or electrical equipment, special training may have to be given.
- Specify (by name if possible) the person who is to clean the item.
- Specify (by name if possible) the person who is responsible for checking that the cleaning has been correctly carried out.

Disinfection can be described as reducing micro-organisms to a safe level. Only sterilisation and radiation will kill all bacteria.

If cleaning the equipment, utensils, crockery, etc, is to be done by hand, a double sink unit should be used for washing and rinsing, using detergent and a disinfecting agent. **If a disinfectant is not used the temperature of the final rinse water should be above 80°C.**

Many cleaning chemicals carry a slight health and safety risk and come under a set of regulations called COSHH (Control Of Substances Hazardous to Health Regulations 1994). These regulations are discussed in more detail in segment three.

⁴ Seafish, National Federation of Fish Friers or your cleaning chemical supplier can usually supply practical advice on this.

EXERCISES

If you have a gas range and it was made after 1996, check that it conforms to approved gas council recommendations and carries a 'CE' certification plate.

Check the cleaning schedules for your premises and major items of equipment. Are there any gaps in the coverage? (During the assessment your assessor may well wish to examine these schedules.)

Has your business a written hygiene policy? When was it last updated?

Check your toilets to see if they have soap, nailbrush and a sign saying "Now wash your hands".

Candidate's signature and date

Any necessary notes for these exercises, can be made at the bottom of this page.

You have now completed this segment. Well done! Time for a well-deserved break?