# How to fillet fish by hand

Learner Workbook

Title	Understand how to fillet fish by hand	
Level	2	
Credit value	2	
Learning Ou	utcomes	Assessment Criteria

Credit value 2	
Learning Outcomes	Assessment Criteria
The learner will:	The learner can:
Know how to prepare to fillet fish by hand	1.1 List the personal protective equipment needed for hand filleting
	1.2 List the tools and equipment needed for hand filleting
	1.3 State company procedures to meet legal and regulatory requirements when filleting fish by hand.
2. Know how to fillet fish by hand	2.1 State how to obtain and interpret process and quality specifications for filleting fish
	2.2 Outline how to identify commonly used fish species
	2.3 Describe how to fillet round and flat fish to achieve maximum yield
	2.4 Describe the body skeletal structure of round and flat fish commonly used in processing
	2.5 List the cuts needed to produce single and butterfly fillets
	2.6 Outline how to assess the quality of whole fish and fish fillets
	2.7 List common quality problems associated with hand fillets and likely causes
	2.8 State the importance of accuracy during filleting.
3. Know how to maintain tools and the workstation	3.1 Describe how to sharpen, maintain and store knives
	3.2 State how to prepare and maintain work stations in a condition suitable for hand

	filleting
	3.3 State how to deal with fish which is not fit for use
	3.4 Describe product control and traceability arrangements for filleting operations.
4. Know how to finish hand filleting	4.1 State what action to take when the process specification is not met
	4.2 List what parts of the filleted fish frame can be reworked and recycled
	4.3 State how to dispose of waste following company procedures
	4.4 State the limits of own authority and competence
	4.5 Describe the importance of working within the limits of own authority and competence
	4.6 List the recording, reporting and communication requirements when filleting fish.

## **Achieving the Unit**

The following information will support you with the knowledge requirements to help you achieve this unit.

Whilst the booklet provides a good source of information, it is not exhaustive. We recommend that you research information yourself via the internet or at your local library. Useful sources of information include the Sea Fish Industry Authority (www.seafish.org) and the Seafood Training Academy (www.seafoodacademy.org).

Seafish has developed a range of training resources in fish filleting including:

- Three training DVDs showing methods of filleting different species of round and flatfish;
- A fish filleting taught course supported by detailed Trainee and Trainer's workbooks.

There is more information on resources at the end of this workbook, and some fish filleting demonstration videos can be accessed via the Library in the Seafood Training Academy website.

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Lee Coo Seafish	per	

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#### **UNIT DETAILS**

Unit Number: FP.102K

**Unit Qualification Number:** 

**Title:** Understand how to fillet fish by hand

Level: 2

**Credit Value: 2** 

#### **UNIT AIMS**

This unit supports workforce development for those who are responsible for the hand filleting of fish in fish processing businesses. The unit may also be suitable for filleting activities in seafood retail businesses.

The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

#### CONTENTS

**Section 1:** Introduction, PPE, hygiene clothing, tools and equipment,

organisation alprocedures

**Section 2:** Process specifications, fish ID, filleting methods, quality.

**Section 3:** Care of tools, preparing the work area, product control

and traceability.

Section 4: Remedial actions, reworking and recycling, waste

disposal.

Section 5: Recording, reporting and communications, limits on authority

Section 6: Additional resources.

#### **SECTION ONE:**

#### INTRODUCTION

Fish filleting and associated knife skills are the backbone of the UK seafood industry.

Much of the output of the seafood manufacturing sector relies on the availability of high quality fish fillets, free of bones and ready to be turned into a fish and chip supper, or the centrepiece of an elaborate seafood meal.

Fish filleting is carried out in small fish merchanting companies based in almost every UK port and has been for generations, but increasingly the UK seafood manufacturing industry is being supplied by frozen fish fillets processed overseas and imported in bulk by the container load.

This challenge from overseas to the UK filleting workforce means that we must work harder to ensure that the fish we fillet can compete on quality.

Quality rather than price is the strength of the UK filleting sector. To this end we must maintain flesh quality through good temperature control and handling practices. Quality must be ensured by providing well cut fillets free of pin bones and unwanted tissues.

We must also keep avoidable costs to a minimum. Avoidable costs include excessive wastage through poor yields, excessive waste disposal and effluent costs, and loss through low production rates.

One way of achieving these aims is through effective staff training in good fish filleting techniques, something that this Learner Workbook aims to contribute to.

Fish filleting is also practiced by the thousands of fishmongers and seafood chefs operating throughout the UK. While this Learner Workbook is primarily aimed at processors and fishmongers, there is much to interest the seafood chef here as well.

## PERSONAL PROTECTIVE EQUIPMENT (PPE) (Ref: 1.1)

Because the filleting operation requires you to handle a sharp knife and some fish have sharp spines you will need some form of cut resistant gloves. You may also wish to wear some form of water proof glove and an apron to protect you from prolonged exposure to water.

If it is cold then your clothing should be suitably warm, and of course your footwear must be appropriate to a wet environment.

PPE must be fit for purpose and supplied free of charge by your employer. You have a responsibility to wear it, look after it and when it needs replacing to bring this to the attention of your employer.

The hat, hairnet, clean coat, plastic arm covers, beard snood etc are not PPE as they are not there to protect you from injury during shucking. They are there to protect the food from contamination by you.

PPE is covered by Health and Safety legislation, whereas the need for hygiene clothing is covered by various Food Safety Laws.

#### **HYGIENE CLOTHING**

When handling fish it is essential that your outdoor, everyday clothes are covered. The important reason for this is to protect the product from any loose material such as hairs or fluff which might fall from your clothes onto the fish. Remember you are handling food. People will eventually eat what you are producing.

## **Head coverings**

- Either a hairnet or hat with a snood which completely encloses the hair;
- Beard net moustache or beard should also be completely covered.

#### **Overalls**

- Everyday clothing covered by a clean washable overall;
- Waterproof apron disposable or washable;
- Disposable plastic sleeve protectors.

#### **Footwear**

• White rubber Wellington boots – waterproof and cleanable.

Never wear outdoor shoes in a food preparation area – if wearing special boots is impractical, outdoor shoes should be covered with disposable plastic boot covers. And, don't wear your rubber boots outside of the work area as you don't know what you will pick up on the soles.

## **Maintaining Clothing**

Your hygiene clothing must be kept clean, to help prevent contamination of the products.

- When you have finished work, scrub clean your apron and boots, wash them with a dilute solution of detergent or bactericidal cleaner and leave to dry;
- Alternatively, you may have a cleaning service to do this for vou:
- Fabric items, such as overalls and cloth hats must be laundered after each processing session.

Disposable items must be used once only. Use fresh each time.

#### **TOOLS AND EQUIPMENT** (Ref: 1.2)

Depending on the species and cuts, filleters working in processing factories may be required to use a wide a range of tools and equipment as appropriate to fishmongers. This section has been written with the fishmonger in mind, but is equally applicable to the processor filleter.

All knives used in fish processing must have moulded plastic handles – they are easier to keep *hygienically clean* than wooden handles. Chefs will of course use colour coded handles for preparing different types of food products to avoid cross contamination.

## Requirement

## **Boning Knife**

5 inch hard stainless steel knife, designed to cut through small



bones without losing its edge. Ideal for fish and easy to handle.

## Filleting Knife

7 inch **soft stainless steel** knife, designed to bend when pressure is applied to the side of the blade through the handle. Again, ideal for fish filleting and skinning.



## **Steaking Knife**

10 inch **hard stainless steel** knife, ideal for steaking whole fish and cutting through large bones





### Fish Scaler

Light weight alloy scaler with a small head and blunt teeth. Designed to remove scales with ease when drawn down the length of the fish from tail to head,

without scattering the scales around your work area.

#### **Scissors**

Sharp, study short bladed kitchen scissors with a strong handle. Ideal for trimming fins, regardless of the size.



Smooth Steel A smooth steel is designed specifically to sharpen soft



stainless knives such as filleting knives. Frequent light use will ensure a razor sharp edge is maintained.

#### **ORGANISATIONAL PROCEDURES** (Ref: 1.3)

Organisational procedures are usually based around a combination of three demands:

- What the Law and regulations require;
- What is generally good practice and required to simply do the job right;
- Particular requirements specific to your business the 'do it our way' principle.

In the better run businesses, greater emphasis is placed on the demands of legislation and the requirements of industry good practices. Sadly, in some businesses the key driver is 'we do it this way, because we've always done it this way'.

Whatever the nature of your seafood job, there will be a whole raft of company procedures that are based on the needs of food safety legislation, health and safety legislation, employment law etc.

The need to wash hands, wear hygienic clothing, use appropriate PPE, lift and handle weights appropriately, work responsibly, maintain records etc all have legislation at heart.

The need to minimise waste, reduce water usage, clean as you go, minimise temperature abuse of the fish or shellfish, handle with care etc are largely driven by industry good practices.

#### ACTIVITY

With your supervisor's assistance, list the 10 most important<sup>1</sup> company or organisational procedures related to your job. For each procedure make a decision (tick the box) on what is the key reason for the procedure.

<sup>&</sup>lt;sup>1</sup> I'll let you decide on what basis a procedure is important or not. Insert text or a tick as appropriate.

	Why is it important?		
Procedure	Law ✓	Good practice	Other

Do you draw any conclusions from this list?					

Although your employer has a duty to ensure you receive adequate training, supervision and instruction so that you can comply with these organisational procures, it is your responsibility to ensure that you are complying with the law, by following these procedures.

#### **SECTION TWO:**

## PROCESS SPECIFICATIONS (Ref: 2.1)

At the end of Section One you were asked to list the 10 most important organisational procedures related to your job as a fish filleter. Perhaps the list included process and quality specifications or standard operating procedures?

Each filleting specification will have its own specific requirements, but almost all filleting specifications will have common requirements. List the main requirements' of your chosen filleting specification here:

- The fish species to be filleted;
- The type of finished cut required;
- The quantities to be filleted;
- •
- •
- •
- •
- •
- •
- •
- •
- •
- · Recording requirements.

If you have any problems interpreting the specification then discuss it with your line manager.

## FISH IDENTIFICATION (Ref: 2.2)

It is important that you can recognise all of the various species and forms that you are likely to encounter during normal filleting activities.

Most seafood processing businesses will specialise in a few types of species, while fish merchants and fishmongers/retailers will need to be able to identify a larger number of species.

### **ACTIVITY**

List the main species you are likely to be asked to fillet and the different types of cuts you can do.

Species	Cut

Fishmongers may well have to deal with 20+ species of fish and shellfish as frozen, chilled, cooked, and live products.

While the basic fish skeleton is similar for all commercial species in



the UK, there are important differences between round and flatfish. If you are not already able to describe the skeletal structure in broad terms, then take time to examine a well filleted fish frame to see how the layout of bones affects the standard filleting techniques.

(Ref: 2.4)

## FILLETING METHODS (Ref: 2.3)

Whether you are an experienced fish filleter or someone who has recently been trained to fillet, there are four criteria which will be used to judge your competence as a filleter.

For three of these criteria the newly trained filleter is expected to be almost as good as the experienced worker as everyone filleting fish in a business is expected to meet the company standards for:

- Quality of processed product:
  - The 'neatness' of the cut flesh;
  - o The lack of unwanted tissues (belly cavity lining etc).

- The yield of the process product:
  - Maximum edible flesh on the fillet;
  - Minimum edible flesh left on the frame.
- Good working practices:
  - Hygienic working;
  - Safe working;
  - o Team Working.

The fourth criteria is speed or rate of throughput. The experienced fish filleter is able to fillet fish with a speed and gracefulness that you, the newly trained filleter will only reach after many hours of cutting fish.

Provided though you are not wasting product, and are making satisfactory progress towards improved throughput, then you will soon be an asset to your employer.

There is one part of filleting that you, as a newly trained filleter is often better able to do than the experienced worker, and that is to describe the steps in filleting a fish. At this stage you are probably still talking yourself through the process, but when you become proficient the whole filleting process blends into a seamless single motion starting with a whole fish and ending with a couple of fillets.

Seafish have produced a series of training packs (DVD and written materials) that describe filleting methods in detail. Here is a very brief summary by way of illustration.

## Single Fillet

Filleting Step	Key issues
Holding the head towards you, cut	To achieve a good yield the knife
between the gill cover and pectoral fin	needs to be angled away from the
to remove the head.	head
Insert knife into body cavity and push (edge first) towards tail of fish.	Do not go beyond the vent. Do not puncture guts by inserting knife too far into cavity.
Turn fish tail towards you. Cut down	Slight downward pressure needs to be
centre of the back of the fish, just above the backbone.	applied to the tip of the knife to ensure good yield is achieved
Push the blade forward into the gut cavity.	Ensure your hand is not in the way.
In a smooth stroke, pull the knife down	The blade needs to be flat against the
the length of the fish, towards the tail.	bone.
Release the first fillet from the bone.	Follow the ribcage but do not cut through the bone.
Side 2.	
Turn the fish over, tail away from you.	Cut away from you. A continuous slight
Cut down the back of the fish just	downward pressure needs to be
above the backbone, pushing the knife	applied to maximise yield. The
forward towards the tail.	positioning of your knife is extremely
	important. The blade must be behind
	the handle, as the knife is pushed
This filled is not a seed in a see as ( As )	forward along the bone
This fillet is released in one cut. As you	If any rib-bones are left on the fillet,
push forward, the blade needs to be	these can be carefully removed with
visible on both sides of the fish. Steady	your knife.
control must be applied to the knife.	

## Single Fillet









**Double Fillet** 

## **ACTIVITY**

## **Double Fillet**

In the space below, describe the various steps in producing a double fillet from a fish such as a mackerel or whiting. Include any key safety or quality/yield issues.

Filleting Step	Key issues
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	l.
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#### **QUALITY** (Ref: 2.6)

There are two aspects to fish quality that fish filleters need to be aware of.

There is the organoleptic quality of the fish flesh. What it tastes, looks and smells like – how fresh the fish is. This type of freshness<sup>2</sup> quality is very dependent upon how well the fish has been handled, how cool it has been kept since harvesting, and how long it has been out of the water.

Organoleptic (freshness) quality is gradually lost over time.

It will have an effect on the filleter as poorer quality fish will have softer flesh and be harder to fillet well. The filleter can also do their part in helping to maintain quality by using good handling practices:

- RECEPTION When wet fish is received, boxes must be opened and the
  contents checked for quality and to ensure that they are covered with flake
  or shale ice. Keep lids on the boxes, store in a chilled room or container
  until required, ideally at a temperature of between -1°C to +1°C. If it is any
  colder, the fish will freeze, any warmer and the fish will start to deteriorate.
- DURING PROCESSING Do not expose either whole fish or prepared fillets to temperatures above 5° C for any longer than absolutely necessary for the processing. Keep lids on the boxes, only take as much raw material as you can comfortably process in 10 minutes.
- AFTER PROCESSING Store prepared fillets flesh to flesh in pairs. Place flat in a clean box, cover with plastic sheet to minimise ice damage and cover with a good layer of ice before putting the lid on the box and returning it to the chilled holding area. Treat the fillets gently, do not screw them up or throw them into the box anyhow. The flesh is delicate and easily damaged by rough handling and by direct exposure to the ice.

While you will not be expected to be able to assess the organoleptic quality of fish using any of the formal systems, you should be able to spot the occasional rogue fish that is of much poorer quality than the rest of the fish in your batch and take the appropriate steps as prescribed by your company.

<sup>&</sup>lt;sup>2</sup> Not to be confused with fresh meaning never been frozen.

The other aspect of quality is the quality of your filleting, and here you must be able to objectively assess how well your fillets are turning out.

The acceptable quality of fillets is likely to be specified in a product specification and may be backed up be photographic examples.

#### **ACTIVITY**

Examine the appropriate quality specification and list the quality criteria below. We have provided a few categories to get you started.

Species:

Type of cut:

## **Quality Criteria:**

Cut edges should be -

Bones (inc. pin bones) -

Belly flap trimming -

Yield at least -

Other criteria? Please add here.

## **Microbiological Quality of Fillets**

The assessment of the microbiological contamination of fish fillets is an issue for your Quality Assurance team, rather you. Provided you work hygienically, avoid contamination and maintain good temperature control there is little else you can do personally to ensure the microbiological safety of the fillet.

#### Fit For Use

There are a number of reasons why particular fish may be considered unfit for use:

- Fish is of very poor organoleptic quality visual clues include appearance of whole fish, appearance of cut fillet, smell etc;
- Fish exceeds microbiological criteria set by customer;
- Unable to produce a fillet of the required size.

Sometimes it is possible to rework the fillet or to remedy the problem, but too often the only sensible response is to send that fish or fillet to waste.

We will explore these issues in more detail in section four.

## Accuracy and Yield (Ref: 2.8)

Usually when we think of accuracy in filleting it is simply a case of achieving the maximum yield from that particular fish.

There are however examples where greater accuracy results in a necessary lower yield. Occasionally a customer specification for a fillet will not only have a tight minimum weight, but also a tight maximum weight as well.

Fillets that are over weight will have to be trimmed, which adds time and cost to the work. Far better to adjust the cut to produce fillets within the weight range consistently, even at the expense of a reduced overall yield.

## **Common Quality Problems** (Ref: 2.7)

Some of the problems you are likely to encounter are not of your making.

Badly gutted fish, fish that have been squashed into overfilled boxes and poorly iced fish are all problems that may make your job harder.

You will have control over some of the other problems common in filleting.

Whatever the problem there will be a cause and an impact. There is space below to complete three of our examples and to add two of your own.

Problem	Cause	Impact
Badly gutted fish	Bad practice onboard	Accelerated spoilage
	fishing vessel	from gut contents, poor quality fillet.
Squashed and distorted fish	Overfilled boxes, fish not laid out before icing	Slower to fillet and poorer yields.
Softer than usual fish flesh		
Gaping flesh in the final fillet		
Red spots or bruises in flesh of fillets		

#### **SECTION THREE:**

## CARE OF TOOLS & KNIFE SAFETY (Ref: 3.1)

- Always store your knives safely in a knife rack or sterilising rack when not in use.
- Be aware of where your knives are in relation to where your hands are.
- Don't leave a naked blade lying on the block when the knife is not in use.
- Never cut towards yourself.
- Never hold a knife by the blade.
- Always use the right tool for the job don't try to steak with a filleting knife.
- Keep your knives sharp you are more likely to inflict a serious wound if you slip with a blunt knife because you are applying more pressure to force the knife through the flesh.

#### SHARPENING KNIVES

For a very worn or dull blade it may be necessary to regrind using a rotary grinding wheel. The knife must be held at an angle of roughly 20° to the grinding surface to produce a good lasting edge. It is advisable to wear safety goggles when using a grinding wheel to protect your eyes from sparks. If carried out in a processing factory then this is usually a specialized role.

To maintain an edge on the knife, use either a steel or a chantry.

## **Using a Sharpening Steel**

Place the pointed end of the steel firmly on the work bench with the handle uppermost. Angle the knife away from your body and using firm movements, stroke the edge of the knife blade down the steel from top to bottom, at the same time moving it across the steel from the knife handle to the point of the blade. The knife blade should be at about a 20° angle to the steel. Repeat the action on the other side of the steel with the opposite side of the knife.

## **Using a Chantry**

A chantry consists of two sharpening surfaces housed in a plasticised metal case. The two sharpening surfaces are held at an angle to each other so that when you draw the knife backwards and forwards through the gap in a sawing motion, the blade is automatically presented to the sharpening surfaces at the correct angle. This is much easier for a novice to use.



#### PREPARING THE WORK AREA (Ref: 3.2)

Before you start to fillet or process fish you must make sure that the area where you will be working is suitable and ready for use. Use the following checklist

The workroom area should be clean and tidy, free from any rubbish, any external doors and windows should either be closed or covered with suitable barriers to exclude flies and other pests.

## Tools you will need should

be assembled. Check that they are clean, sharp and do not have loose handles. Any tools which you will not need must be correctly stored away from the preparation area.

Cutting tables and blocks must be clean and free from all debris.

Bins for the storage of fish waste must be clean.

**Clean boxes** for the storage of the finished product should be in place.

Supplies of **ice and protective film** for covering the finished product should be in place.

Put on **protective clothing** and wash hands.

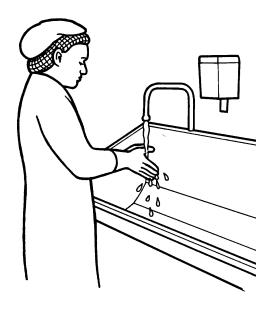
Only when you are sure that everything is ready should you begin work.

#### **Hand Washing**

Your employer will have trained you in how to effectively wash your hands and will have a procedure on when and how to do this.

We think this is so important that we're including our own brief guide to hand washing here.

#### Hand Washing - a summary



- Wet hands before applying liquid soap.
- Apply liquid soap (one pull of dispenser).
- Rub hands together vigorously for about 10-15 seconds (count – it's longer than you think!!).
- Make sure you wash both sides of the hands, fingers, thumbs, nails and wrists.
- Rinse thoroughly with clean water.
- Dry thoroughly with a clean paper towel.
- Apply alcohol liquid/gel to hands and massage into all surfaces.
- Allow to air dry (do not wipe your hands on your clean overall).
- If gloves are to be worn, apply alcohol liquid/gel to glove surfaces before work.

#### Don't Forget

 Although wearing of wedding bands is allowed in food production areas, these are a potential source of infection and can be a site for bacterial pockets. Always lift

- and turn the band when washing/disinfecting.
- Nail varnish should never be worn in food factories. False nails or nail extensions are also not permitted.
- Nails should always be short and clean.
- All skin lesions, cuts or abrasions should be covered with a blue plaster or official dressing. Any infected cuts or skin problems should be reported prior to work

## PRODUCT CONTROL AND TRACEABILITY (Ref 3.4)

An important aspect of seafood quality and safety assurance is to be able to trace products, ingredients, suppliers, retailer, processing operations or storage procedures through the seafood chain. This is especially important when problems occur. Traceability describes the systematic recording of information about a seafood product from point of harvesting to point of sale.

Hand in hand with traceability is product control and labelling.

Without labels that are unique to each individual product or production batch, it would be impossible to track fish and shellfish through the seafood chain and to know at each step in the chain how they had been handled and processed.

This ability to trace and track batches of seafood and to know what you and others have done to them is a key part of product control.

## Advantages of product control / traceability / labelling

- To meet legal requirements;
- An effective food safety assurance tool;
- Allows companies to manage suppliers and customers;
  - o Improved mutual trust between supplier/customers;
  - Reduced quality assurance checks if the supplier is trusted;
  - o Potential losses reduced if problems arise;
  - o Better cost accounting means more profitable businesses;
- Automated systems can save time.

Each step in the seafood chain will potentially generate information for the product, including fish reception, filleting, packing and despatch.

#### **ACTIVITY**

Discuss with your supervisor and briefly record your conclusions to the	
following questions about the product control and traceability arrangemen	ıts
in your company.	

in your company.
Q. What information do you need to check when receiving fish to fillet?
Q. After filleting a batch of fish, what kind of records must you complete?
Q. Alter filleting a batch of fish, what kind of fecolds fildst you complete:
Q. Do you understand the arrangements for product control and
traceability in place for filleting operations in your company? Yes/ No
If No, please discus with your supervisor.
If yes, please briefly describe them here.

#### **SECTION FOUR:**

## REMEDIAL ACTIONS, REWORKING AND RECYCLING

(Ref: 3.3, 4.1, 4.2)

The process specification determines whether or not the fillets you produce are what are required, or not.

Fillets may not meet the requirements of the process specification for several different reasons. Some reasons require remedial action, some reworking or recycling and some will simply lead to waste.

For the purposes of this Learning Workbook we will define remedial action as action taken to remedy a fault that does not lead to reworking, recycling or waste.

## **Examples**

#### **Remedial Action:**

- Temperature of fillets post-filleting are too high.
  - o Causes will include:
    - Water in filleting bench tank not chilled;
    - Fish too long out of chiller;
    - Fish not iced properly.
  - Solutions include:
    - Add ice to tank water in warmer weather;
    - Remove smaller batches from chiller prior to filleting;
    - Leave fish in ice until needed, ice fillets promptly.
- Ice damage to fillets.
  - o Causes include:
    - Poor icing technique;
    - Protective poly film not used;
    - Overfilled boxes of iced fillets.
  - Solutions include:
    - Lay fillets in pairs, flesh to flesh;
    - Use poly film to protect fillets from ice drip wash;
    - Don't overfill or overstack boxes of fillets.

### Reworking

- Fillet quality is out of specification.
  - o Causes will include:
    - Poorly filleted fish;
    - Excessive bones:
    - Nematode worms:
    - Blood spots and bruises.
  - Solutions will include:
    - Fillets to be re-cut and trimmed;
    - Bones to be pulled or cut out;
    - Candling and removal of visible worms;
    - Cutting out and careful trimming to remove unsightly tissue.

## Recycling

The most common reason for recycling fish is that it simply cannot be used for its original purpose.

This includes fillets so far out of specification that they cannot be reworked, as well as the various off-cuts of fish that are small but contain valuable fish flesh.

The frame from the filleting operation contains flesh that can be extracted manually or by a flesh/bone separator to produce fish mince.

Traditional markets for cheeks (usually cod), tongues and belly flaps are much smaller than they used to be and these by-products are more likely to be used to produce fish mince.

Material that cannot be used for human consumption because of food safety or quality reasons may still be used in the production of fish meal.

## WASTE DISPOSAL<sup>3</sup> (Ref: 4.3)

There are two waste products from the filleting process.

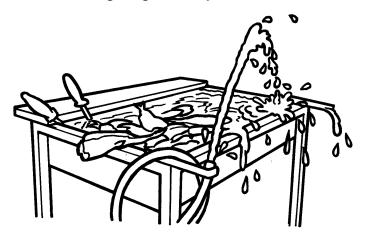
<sup>&</sup>lt;sup>3</sup> Seafish have extensive waste minimisation training and technical materials available.

First fish flesh that cannot be reworked or recycled because of reasons of food quality or food safety, and second, water.

Overly strong effluent production is a real issue in fish filleting operations where excessive amounts of water are used, and little is done to keep solid material out of the drains.

The water companies charge fiosh processing companies for water and effluent:

- The water supply charge:
  - The more water used the higher the costs.
- The effluent charge:
  - o The volume is based on all the water you use;
  - The strength charge is based on the amount of organic material going down you drains.



Simple precautions such as turning off the taps during breaks, fixing leaks, only using water as needed will minimise the volume of water charged for AS WELL AS the volume of effluent charged for.

Keeping waste material out of the drains will reduce the effluent strength charges.

Together these represent a significant cost to a fish filleting business.

#### **SECTION FIVE**

## **RECORDING, REPORTING AND COMMUNICATING** (Ref: 4.5, 4.6)

Recording, reporting and communicating are essential activities that take place every day while we are at work. They probably take place every hour of our working day, so just what are we recording, reporting and communicating about?

Here are a few of our ideas on general issues.

- Product, processing or packaging specifications;
  - o You may be given a written report on a new process specification.
- Targets, schedules or deadlines;
  - You may verbally communicate to your supervisor that a scheduled task has been completed.
- Results, scheduled milestones, routine outcomes;
  - O You may record the completion of each check of the metal detector.
- Health and Safety or Food safety issues;
  - O This could include you reporting problems to your supervisor, or receiving updates on changes to policy.
- Impending operational problems;
  - Verbal reports on what might go wrong.
- On-going operational problems;
  - O Usually verbal reports on what's being done to fix the problem.
- Task Handovers;
  - o Informing those taking over from you at the end of your shift.

These are pretty general. Can you list below three different examples of a communication, a report and a record from a typical working day during intake operations?

By way of a definition:

A report is usually one way – you report to someone, or they report to you. Communications are usually two way – information is exchanged and may be discussed.

Records – a permanent or semi permanent record of an outcome – almost always written.

Examples of Records made	
Reports – verbal or written	
Communications  – what were they	
about?	

## The Importance of Communication and Reporting



What do you think may happen if communications and reporting were absent, delayed or inaccurate?

Think about this for a moment or two before looking at our list.

Perhaps even make your own list to compare to ours.

Communications and reports that are delayed, inaccurate, incomplete or absent may lead to:

- Misunderstandings and confusion;
- Poor working relationships between colleagues and team members;
- Drop in H&S or food safety performance;
- Production problems that may lead to increased waste or increased costs;
- Damage to equipment or machinery;
- Quality losses and perhaps even product recalls;
- Loss of sales / customers due to poor quality, out of specification products etc.

When communications and reports are on time, accurate and fit for purpose, what may be the results?

• A more efficient, effective and pleasant(er) workplace.

#### **Effective Communication**

How is this achieved?

- 1. Providing information:
- Find somewhere appropriate to communicate where the noise levels are suitable;
- Be precise and stick to the points;
- Use notes if appropriate;
- Maintain appropriate eye contact;
- Use polite gestures;
- Pay attention to the recipient's body language;
  - a. Are they showing an interest?
  - b. Have you 'lost them'?
  - c. Are they taking notes?
- Ask occasional questions to check their understanding of the messages.

## 2. Receiving Information:

- Listen carefully;
- Indentify the important points;
- Take notes if appropriate;

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- Ask questions to confirm your understanding;
  - a. Use open questions or paraphrase what is being said;
  - b. Avoid closed questions unless you really want a Yes or No as the reply;
- Check all important information with the information provider;
- Show you are paying attention by:
  - a. The way you stand;
  - b. Making appropriate eye contact;
  - c. Asking the right questions.

d.

## **Effective Recording**

The main purpose of records are to provide:

- Evidence of what happened during the work period;
  - o evidence that certain steps were taken;
  - o evidence of any problems, or the absence of problems;
  - a record of key data such as temperatures, quantities, batch numbers etc.
- Confirmation that the people tasked with collecting and writing down data actually did so – that's why you have to sign and date forms;
- Information for:
  - o financial analysis;
  - o problem solving and fault diagnosis;
  - o traceability.

Many of the records we keep are routine, with the same data recorded batch after batch, day after day. The very routine nature of recording may make you assume it is not important and it doesn't really matter. IT DOES!

It is important to the customer, your bosses and you.

A wise woman once said: "if it's not written down, it didn't happen." We can take that to mean, if you keep careful, accurate and honest records of what you do, as required by your employer, then should a problem arise they will be your best defence, and that of your bosses as well.

This only works though if you write down what actually happens, not what you think should have happened.

#### So:

- Write down the actual temperature of the delivery, the one you actually measured;
- Write down the actual time the check weigher was tested, not the time it was supposed to have been tested;
- And please, don't fill in records in advance.

Recording what has happened is an important part of any seafood processing or handling operation. Almost everything you or your colleagues do will result in a record somewhere in the company.

Records and the accurate recording of data are essential if the business is to survive and prosper and your job is to be secure. We need to record all kinds of information during our working day. What kind of records do you need to complete during a normal intake operation?

Document name	Describe its purpose

## **LIMITS ON AUTHORITY** (Ref: 4.4)

We all have limits on our authority, even the Managing Director. Usually these limits are tested when something goes wrong. Do you know your limits? What you can and cannot do?

#### **SECTION SIX:**

#### **ADDITIONAL RESOURCES**

#### FILLETING RELATED

- 1. Fish Filleting Training programme an accredited training programme available from Seafish approved trainers.
- 2. Fish filleting video demonstrations online at www.seafoodacademy.org
- 3. Seafood and Eat It a 6 DVD masterclass with three DVDs of fish filleting methods. (DVDs available individually).

#### **GENERAL**

- 1. Food Safety training courses from level 1 to level 3:
  - a. Available in various languages;
  - b. Available as taught courses, open learning programmes and by eLearning<sup>4</sup>;
  - c. CIEH and REHIS approved.
- 2. Health and Safety training courses:
  - a. Level 1 taught course;
  - b. Level 2 as a taught course or open learning module;
  - c. CIEH and REHIS approved.

For information on all of these training resources and others, contact Seafish:

Seafish Training
Sea Fish Industry Authority
Humber Seafood Institute
Europarc
Grimsby

<sup>&</sup>lt;sup>4</sup> A free to study, level 2 course is available at www.seafoodacademy.org

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Tel 01472 252300 Email training @seafish.co.uk

See also: www.seafish.org and www.seafoodacademy.org