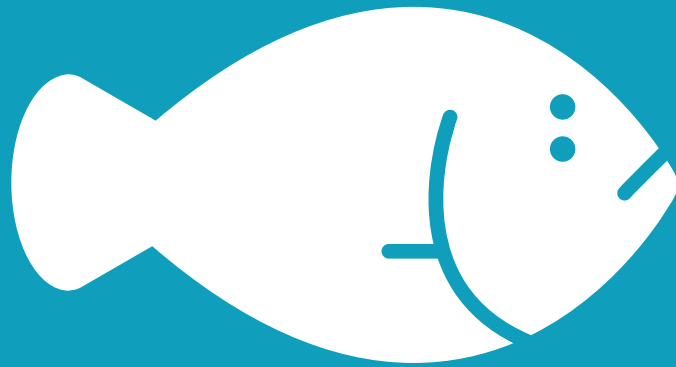


COMPLIANCE SUPPORT GUIDE



DEMERSAL FISH

INCORPORATING CEPHALOPODS

SEAFISH



CONTENTS

1 / INTRODUCTION



- | | | |
|-----|--------------------------------|----|
| 1.1 | The Responsible Fishing Scheme | 03 |
| 1.2 | RFS Compliance Support Guides | 04 |

2 / DEMERSAL SECTOR GUIDANCE



- | | | |
|-----|---------------------------------------|----|
| 2.1 | Fishing practices | 05 |
| 2.2 | Fish handling | 05 |
| 2.3 | Onboard processing | 05 |
| 2.4 | Fish quality | 06 |
| 2.5 | Onboard storage | 07 |
| 2.6 | Temperature monitoring and control | 10 |
| 2.7 | Weighing, labelling and boxing at sea | 11 |
| 2.8 | Vessel hygiene and cleaning schedules | 12 |

3 / GLOSSARY



- | | | |
|-----|----------|----|
| 3.1 | Glossary | 18 |
|-----|----------|----|



1 / INTRODUCTION

1.1 The Responsible Fishing Scheme

The Seafish Responsible Fishing Scheme (RFS) is a voluntary vessel-based programme certifying high standards of crew welfare and responsible catching practices on board fishing vessels.

The RFS is open to all types of fishing vessels and fisheries, and is a 'business-to-business' tool that helps fishermen showcase best practice through independent, third-party auditing. To become certified, applicants must meet the requirements of the RFS Standard. A vessel and its skipper is the 'unit' audited against the Standard.

Certification to the scheme demonstrates that the skipper and vessel operate to best practice in five core areas:

Core Principle 1: Safety, health and welfare

- A commitment to generating a culture of integrity and respect (e.g. no forced labour) will be demonstrated.
- Best practice drawn from other relevant safety management and ethical and welfare initiatives to improve safety of the crew and promote decent working conditions.

Core Principle 2: Training and professional development

- Access to training for the key priority areas, especially safety.
- Focus on improving skills, knowledge and understanding.
- Commitment to raise standards, open up new opportunities and cooperate with management authorities.

Core Principle 3: The vessel and its mission

- The vessel and its gear are in compliance with all current legislation.
- The vessel operates within the legal framework with the right documentation in place.
- Full cooperation with Voluntary Agreements in existence in the fisheries within which they operate.

Core Principle 4: Care of the catch

- Focus on supplying safe, high quality, wholesome product with known provenance.
- Hygienic handling and storage at appropriate temperatures.
- Full traceability from catch to quayside.
- Responsible capture and landing of live products.
- Commitment to maintaining the value of the catch.

Core Principle 5: Care for the environment

- Responsible practice with respect for the environment (management of litter, lost fishing gear recovery, wildlife interaction records).
- Supporting fishery science (e.g. observers, science partnerships etc).
- Tie-in with other voluntary schemes.

1 / INTRODUCTION



1.2 RFS Compliance Support Guides

The RFS Compliance Support Guides (CSGs) underpin the RFS Standard and assist the skipper in understanding all areas that need to be complied with to successfully achieve RFS certification.

There are six CSGs in total - five sector-specific guides that the applicant will work through as appropriate to their own operations, and one cross sector guide that applies to all sectors. **Applicants should read all the applicable CSGs before submitting their RFS application forms.**

Sector specific CSGs (applicants must read any which cover their type of fishing operations)

- Demersal
- Shellfish
- Nephrops
- Pelagic
- Scallops

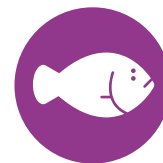
General Cross Sector CSG (all applicants must read this guide)

- Health and Safety
- Welfare
- Catch safety and traceability
- Onboard food preparation
- The environment

The legal requirements that apply to the operation of a fishing vessel cover basic issues of food safety, fish marketing, fishery controls and health and safety, most of which meet requirements set by the EU. **It is the responsibility of the skipper to ensure that the vessel is operating and catching within the appropriate legal framework.**

The CSGs provide information and support to assist applicants in meeting the conditions of the RFS Standard, and help them prepare for the RFS certification audit. These guides include support on general fishing operations as well as sector specific practices. The Guides direct RFS applicants to relevant documents and explain the conditions which underpin the Scheme, and help in the application and preparation process before a vessel undertakes its certification audit.

2 / DEMERSAL SECTOR GUIDANCE



2.1 Fishing practices

The sizes and diversities of vessels targeting demersal whitefish species varies widely across the fleet. Capture methods typically fall into two categories, active towing of nets or passive setting of nets or traps. Both are equally effective dependent upon the species targeted and, dependent upon how the operations are carried out, can significantly affect the quality of the catch.

Both tow and soak times will affect the quality of the catch and the length of each should be balanced between commercial viability and catch quality. Similarly length of trip can also affect the catch quality, particularly catch caught at the start of trips, so again a balance needs to be reached where the benefits of extending trips to capture more fish are not offset by poorer prices at point of sale.

In addition to the size and diversity of the fleet, the fisheries they target also vary greatly from predominantly single species fisheries to multiple mixed fisheries and wherever possible gear should be designed in such a way so as to maximise retention of target species with non-target and/or juveniles escaping or being excluded prior to gear being boarded.

2.2 Fish handling

Areas used to receive the catch should be designed in such a way so as to offer maximum protection from the elements and in all cases against any other possible sources of contamination.

In addition to the vessel being free from sources of contamination it is also important that crews handling the catch are also as clean as practically possible. Care must therefore be taken to ensure that all protective equipment worn by the crew is in good condition and cleaned on a regular basis.

As far as practically possible when boarding the catch it should be lowered onto the deck as this will minimise the potential for bruising. Similarly, gentle handling when sorting and grading will ensure that quality is not compromised.

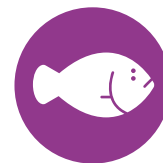
On occasions where it is necessary to use a gaff, it should only be used in head or gill cavity as otherwise there is potential for flesh damage which may reduce the value of the catch when landed.

2.3 Onboard processing

Gutting and bleeding

Once the catch is boarded and sorted, operations such as heading and/or gutting should be commenced without delay. However, where gear is to be shot back, it is advisable to do this before the commencement of gutting operations as this will both maximise fishing time and will ensure the gear is well below the water before seabirds flock to the vessel to eat the discarded waste. Once gutted, fish should be washed in clean sea water or potable fresh water to remove traces of any gut contents, which if not removed could contaminate the flesh with high loads of spoilage bacteria and ultimately reduce the shelf life and quality of the landed catch. As far as is reasonably practicable the vessel should be designed to allow all fish offal and other waste products to be kept separate from the retained catch and in all circumstances operations should be carried out in such a way that catch remains separated from waste. Where livers and roes are retained these should be kept separate from the whitefish catch but equally afforded careful handling, washing and storage. In order to maximise catch quality it is recommended that catch should be processed within one hour of boarding. Once all the catch has

2 / DEMERSAL SECTOR GUIDANCE



been processed all equipment and areas should be rinsed down with clean seawater prior to the next haul being taken on board. Where mechanised gutting takes place it is recommended that machinery cleaning, and maintenance is carried out according to documented procedures developed as part of the vessels food safety management system.

Additional advice for the gutting of flatfish species

The following advice reflects the practices commonly cited as best practices but variation may occur dependent upon local market requirements.

Plaice, lemon sole, dab, halibut and witch should be gutted on the coloured side, and then washed like other demersal species and stored belly cavity down.

For species such as megrim, brill and turbot it is usual to gut them on the white side and again store them belly cavity down.

In addition to gutting it is recommended that species such as turbot, brill and halibut are also bled as this will minimise bruising which can occur during storage. Typically this is done by making an incision into the backbone on the white side just above the tail.

For species such as Dover or sand sole these should be gutted through a small incision from the gill to the vent along the fin between the top and bottom sides of the fish. In addition they should be boxed with their coloured side upper most.

Cartilaginous species (skates and rays) need to be bled and washed properly as inadequate bleeding of these species can lead to greater problems with the subsequent accumulation of ammonia.

Washing

Once gutted, fish should be washed in clean seawater or potable fresh water to remove traces of blood, gut contents and any seabed detritus which if not removed could contaminate the flesh with high loads of spoilage bacteria and ultimately reduce the shelf life and quality of the landed catch.

In addition for flat fish such as megrim sole the crew should visually inspect gill cavities to ensure that all dirt and sand build-up has been removed.

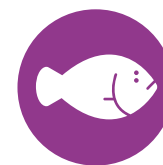
Where mechanised washing equipment is used care should be taken not to overload the machine as this could result in both a poor washing process and also bruising. Similarly the length of time that catch is held in washing machines should be carefully monitored so that excessive bleaching does not occur.

Additional considerations for cephalopods

Where vessels are targeting cuttlefish and squid the following practices are recommended.

These species should be stored in dedicated boxes as their ink can easily contaminate whitefish catch which is very difficult to remove and will likely lower the value of any whitefish landed.

2 / DEMERSAL SECTOR GUIDANCE



In addition to dedicated storage it is also required that these species be stowed separately as again mixed storage could contaminate any whitefish stowed below it.

2.4 Fish quality

The following fish quality specification is required for all whitefish species at the point of landing.

Parameter	Specification
Skin condition	Firm, bright, luster evident, clear mucus, no desiccation.
Blood	Bright red.
Eyes	Normal in appearance, bright and clear.
Gills	Red to pink in colour. No excess cloudy mucus.
Odour	Sea fresh or odourless.
Lice	None present.

The following fish quality specification is required for all whitefish species at the point of landing.

Parameter	Specification
Skin condition (dorsal side)	Cuttlefish Bright, dark brown, iridescent reflexes over the mantle. Squid Bright, defined pigments of different sizes and colours, iridescent skin.
Internal bone	Cuttlefish only The connection bone/head firmly attached to the upper part of the head region.
Eyes	Normal in appearance, bright and clear.
Odour	Sea fresh or odourless.

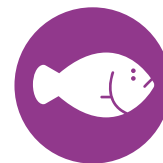
2.5 Onboard storage

The following practices are recognised in ensuring maintenance of catch quality.

Direct icing

- In order to improve shelf life and quality it is important to reduce the core temperature of the fish to that approaching melting ice as soon as possible. Where practical this should be done by firstly immersing the catch into a slush ice mixture before laying the fish into containers as described below.

2 / DEMERSAL SECTOR GUIDANCE



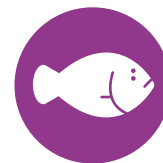
- Containers used for storing fish need to be fit for the purpose of holding product hygienically and capable of being maintained in a clean condition. Other than for slush ice storage they should be constructed with an adequate number of drain holes of a large enough size to allow the free drainage of melt water from the fish.
- To maximise the shelf life of the stored catch there should be a layer of ice placed in the bottom of the container before fish is added, with alternate layers being added until the box is full and topped off with ice.
- The ice must be made from clean seawater or potable fresh water and stowed in conditions that will prevent it from being potentially contaminated by other waste material such as offal or cleaning chemicals, etc.
- The top level of ice should not be proud of the upper rim of the container, if it is this may cause crushing damage to the stowed catch when additional boxes are stacked above.
- The volume of ice should be sufficient to maintain the product at a temperature of between 0°C to +2°C.
- To maximise the quality of the fish the core temperature should be reduced to below +5°C within a time period of four hours from the point that the catch is first handled on board.
- The ice to fish ratio should approximately consist of one part ice to three parts fish.
- To assist further with the cooling effect it is advisable to place boxes partially filled with ice at the bottom of each stack of fish boxes, as this will raise the bottom box of fish off the floor, which will not only keep the fish free of melt water, it will also allow cooling air to circulate around the stack much more efficiently.
- Unless landed in the round, fish should be placed into the container belly-down as this will aid drainage and help to prevent melt water accumulating inside the body cavity which if occurring may have a detrimental effect on the quality of the stowed catch.
- In addition care will be required not to pack the fish in too tightly as this can impede the flow of melt water around the fish. It is essential to allow this melt water to run over the fish as this action will again help to cool the fish more rapidly.
- The stowed catch should always be aligned in the same direction, as this action will help to prevent the risk of distortion, twisting and crushing.
- The placing of non-permeable papers between the ice and fish can reduce the effectiveness of chilling by preventing the ice melt water from draining through the product; therefore only permeable papers should be used.
- Any ice left at the end of a trip should be discarded and replaced with new. This will reduce the likelihood of contamination and flesh damage, as old ice is likely to be hard and lumpy.

Slush icing

The following points are recommended to optimise quality preservation within slush ice containment systems:

- Containers used for storing fish need to be fit for the purpose of holding product hygienically and be capable of being maintained in a clean condition.
- Containers used for storing fish should be insulated.
- Slush ice containers should be lidded to prevent potential contamination from bird faeces, foreign bodies, etc.
- Slush icing will also help to reduce the amount of pressure damage on the fish flesh as it is a liquid media so is ideal for pelagic fish species that tend to have soft textured flesh.

2 / DEMERSAL SECTOR GUIDANCE



Bulk storage

- Where boats store fish in bulked form, the same procedures for the icing and packing of boxed product will generally still be applicable. However, it would be advisable to insert shelves in large bulk stores in order to prevent crushing damage that could be inflicted on the stowed fish.

Cartilaginous species stowage advice

- The cartilaginous species (e.g. sharks and rays) should not be stored directly above the other fish species as on degradation they can produce ammoniac compounds which may leech out and contaminate the other whitefish.

Fishroom structural condition

If the vessel is large enough and has a fish hold construction should be such that it will aid cleaning and will not pose any contamination risk to the stowed fish.

- It should be well insulated to minimise the effect of outside temperature influence and it is usually recommended to have at least 50mm of insulation in the walls and 100mm on the bulkheads that separate engine room spaces from the fish hold.
- Consideration should be given to install and use insulated floor base panels directly over the hold floor. This can provide additional insulation protection on concrete floors where heat ingress may conduct into the hold from other areas of the vessel such as the engine room.
- In addition, mechanical refrigeration is advisable for trip boats that wish to undertake trips of more than three days as this will prolong ice life and allow for a reduction in the amount of ice needing to be taken to sea.
- For day boats with no specific fish hold, fish should be placed under ice into insulated containers to help preserve ice and maintain catch temperatures within the required range. This will also provide protection from other sources of contamination.

Weight loss during stowage

For trip boats in particular there is a possibility that stowed catch will lose weight throughout the trip. A number of factors can affect this which are listed below.

In order to ensure that declared landed weights are accurate the factors within the control of the skipper and the crew should be taken into consideration.

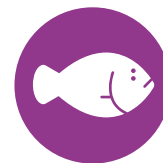
Factors outside the control of the fisherman:

- Fish species.
- Condition of the fish (season).
- Ambient and seawater temperature.

Factors within the control of the fisherman:

- Fishing method.
- Exposure to the elements.
- Time taken to process the catch.
- Method of packing and the ratio of fish to ice.

2 / DEMERSAL SECTOR GUIDANCE



- Volume of fish in the box.
- Length of the fishing trip.

Experience will assist with minimising weight loss management and new crew members in particular should be made aware of this possibility.

2.6 Temperature monitoring and control

As with any protein-based foods and food ingredients, effective temperature monitoring and control is an essential part of ensuring a safe, quality product.

It is required to systematically monitor catch temperatures throughout all fishing trips of more than four hours duration to ensure that the catch is suitably chilled and maintained at appropriate temperatures. Where present, holds may have 'hot' and 'cold' locations within them, depending on their design. It is advisable to ensure that any temperature sensors or display devices are located in areas where the warmest temperatures are likely. Sensors should not be located in close proximity to the entry hatch to the hold, as this will cause temperature fluctuation whenever fish is taken into the hold over the duration of the trip.

For vessels with fish holds it is recommended that systems are fitted to relay the hold temperature information to the wheelhouse as this will maximise the likelihood of being alerted to problems early. Damped temperature sensors should be used. These types of sensors are designed to react less sensitively to fluctuations in temperature, rather than react to variations quickly as would be the case upon the addition of more catch to the hold.

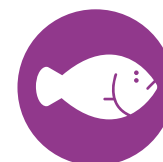
The development of documented temperature monitoring and control procedures (inclusive of temperature control recovery procedures and what happens to the catch during the period of unacceptable temperature control) should be built into vessel food safety management systems.

For vessels where deck storage is the only option it is essential that if trips are likely to be of four or more hours duration that sufficient ice is taken to chill the maximum amount of anticipated catch. Even if trips are expected to be of less than four hours duration it is recommended that ice is taken as smaller vessels tend to offer less shade and temperatures in summer can be significantly higher causing increased rates of quality loss.

Vessels with no dedicated holding facilities should hold their catch in insulated, lidded containers. These will assist in prolonging the ice taken to sea and will maintain appropriate catch temperatures if immersed in ice and lids are placed back on the containers. Where catch is not automatically deposited into containers, regular breaks in fishing must be taken to gather, wash and ice the fish to minimise the length of time catch is not stored in appropriately chilled conditions.

If the catch is frozen on board, then temperatures of fish once frozen should be monitored to ensure that the catch is maintained at or below -18°C for the entire duration of the fishing trip. Freezing is deemed as secondary processing therefore skippers and/or owners should comply with local authority requirements to get vessels registered as food production Authorised Establishments. Prior to landing, any fish should be fully frozen before being removed to shore-based cold storage as if not it may impact on the product later in the supply chain (quality, yield, shelf life, texture, etc).

2 / DEMERSAL SECTOR GUIDANCE



2.7 Weighing, labelling and boxing at sea

Where possible, size grading, weighing and boxing of fish at sea is most desirable as it eliminates the need for de-icing, re-weighing and re-boxing before sale.

The catch should be weighed and labelled in the fish hold as this will minimise the risk of contamination and, where holds are refrigerated place the catch under temperature control sooner.

Some key factors for weighing the catch are listed as follows:

- Ensure that crew working the scales are fully trained in their operation.
- Ensure the scales are correctly tared for the container used to weigh the fish.
- Keep a calibration weight on board and check the scales daily for accuracy. It is advisable to have a written policy confirming the frequency of checks and actions to be taken in the event that the scale readings deviate from those expected.
- Allow the fish to stand for a suitable time before weighing to allow excess wash water to drain off.
- Target weights must include a drip loss allowance as described earlier in this guide.
- Care must be taken not to make up boxes which are significantly heavier than the desired minimum target weight, as the consequence will be an excessively high give-away of catch and potential for decreased yield due to crushing damage when boxes are stacked.

Recommended labelling practice

To comply with traceability regulations it is required that landings are identifiable and documentation is kept that records the following information:

- Boat identification.
- Species (both common and scientific name).
- Date of capture: this may include several days or a period of time corresponding to several dates of catches.
- Unit weight (or numbers).
- Area of capture e.g. the FAO sub area or code for the North East Atlantic.
- Production method (e.g. caught at sea).
- Fishing method.

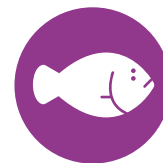
Any additional information such as haul number and fish code may be applied at the discretion of the individual vessel but this is not a mandatory requirement.

Labels should be attached or displayed on each container in such a way that all fish label data is clearly visible to the buyer in the marketplace.

Box weight declaration

It is not recommended that labelling statements give any reference to a 'guaranteed' weight. This is due to the fact that the pre-mentioned factors, which have an effect on drip loss, mean that it is not possible to predict accurately box weights in advance. There are two methods of declaring box weights currently in use:

2 / DEMERSAL SECTOR GUIDANCE



Method 1:

Box labels published with the actual weighed at sea weight.

Each box label displays the actual weight of fish contained in the box at the time it was weighed and packed at sea. When displaying fish weights in this way the label must incorporate a fixed statement, which clearly indicates that:

- i) The weight relates to the weight of fish when it was weighed at sea.
- ii) That it will be subject to a degree of drip loss.

Method 2:

Box labels published with the predicted weight of fish offered for sale.

The label displays the weight of fish that is estimated to be in the box after a drip loss factor has been taken into account (as illustrated above).

Weighing systems displaying label information in this way should incorporate a fixed statement that says that the published weight on the label is the 'Target Weight'.

2.8 Vessel hygiene and cleaning schedules

The use of a simple cleaning schedule can act as a straightforward tool to improve and maintain a high standard of hygiene on board any type of fishing vessel. The use of a cleaning schedule is good practice as it provides a step-by-step instruction as to the systematic cleaning of the working areas to ensure that they are effectively maintained to help preserve the catch and to provide a safe working environment.

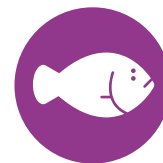
A good cleaning schedule should detail:

- What is to be cleaned.
- How often it should be cleaned.
- Any chemicals to be applied, together with their dilutions and contact time.
- The method of cleaning.
- Details of any Chemical Safety Data sheets.

Vessel cleaning guidelines

Crews must be made aware that the importance of good basic hygiene practices will ensure the overall quality of the catch is maximised and maintained. It is important to make crew members aware of this, as there will be no visible evidence at sea if fish has been excessively contaminated through poor hygiene standards. This set of guidelines explains why certain hygiene practices are important to the fisherman. If crew understand what can spoil the catch, then they will be in a better position to prevent this occurring in the first instance.

2 / DEMERSAL SECTOR GUIDANCE



Working areas

An effective 'clean-as-you-go' policy throughout the trip, and once fishing has been completed, will keep the areas in a suitably clean condition. Nets can be stowed, and fish can be gutted, graded and washed within an environment with minimal bacterial contamination.

Equipment

The variety of equipment held on board for the handling of the fish can on some vessels be quite extensive. All equipment that comes into direct contact with the fish during the handling process should be given particular attention when cleaning. Each piece of equipment is a potential source of contamination to the fish, especially if it is not maintained in a clean condition.

Receiving hopper or pound, conveyors, elevators and chutes

Equipment will become coated with much fish and aquatic debris. If not kept in a good state of cleanliness such debris will build up and dry on to the equipment, making future effective cleaning much more difficult to achieve.

Gutting tables, boards, knives, grading bins

This is the most intensive work area on the vessel, where the crews are removing the guts of the fish from the body cavity. Fish entrails and organs have high contents of bacteria and enzymes, which will rapidly contribute to fish spoilage if not removed thoroughly. Equipment too can become badly soiled.

- Tables, boards and knives should be cleaned regularly and effectively to prevent excessive build-up of residues.
- Gutting boards should be made from a non-porous, readily cleanable material such as polypropylene. Wooden boards in time become waterlogged thus harbouring bacteria, and making them difficult to clean effectively. They are also prone to splintering through wear, which in turn is a potential foreign body risk to the catch; as such they should not be used.
- It is also recommended that plastic-handled knives are used for similar reasons.

Gutting machines

Some boats are equipped with small semi-automatic gutting machines. As their action is quite rigorous they will generate a greater breakdown of the entrails in the process of removing them from the fish. This offal will be contained within the guarding and covers of the machine.

- Check internal surfaces regularly and keep clean.
- Failure to do so will result in offal accumulating inside; stale offal will be harder to remove and will become an ideal breeding ground for bacteria which will ultimately contaminate the fish passing through the machine.

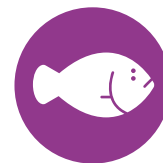
Fish washer

- Clean off scum and other fish residues from around the edge of the washer.

Fish baskets and scales

- Fish in these baskets will generally be un-iced. Therefore, given that there is no temperature control, it is essential that they are kept as clean as possible to minimise the effect of contact contamination.
- Boats with weighing systems on board should not overlook the cleaning of their scales.

2 / DEMERSAL SECTOR GUIDANCE



- If electronic scales and labelling systems are used on board, care should be taken in ensuring that the button interface is not water or chemically-damaged.
- Operate a 'clean-as-you-go' system with these items of equipment, cleaning frequently when in continuous use.

Fish storage containers

Whether owned and cleaned by vessels themselves, or hired from box provision companies, boxes or insulated bins should be checked prior to use to ensure they are both clean and in good condition. Any cracked or broken boxes or bins should be rejected as these cannot be cleaned thoroughly and may contaminate the catch if used. Any dirty boxes or bins should be re-cleaned prior to use.

Boxes and bins should be made of durable materials that are easy to keep clean and cleaned in accordance with vessel cleaning schedules. Where fishroom stowage is not possible boxes should be taken on board prior to sailing and re-washed before use. Where bins are used these should remain lidded to prevent contamination by birds or from other sources of contamination.

Fishroom

The catch may be stowed in the fishroom from anywhere between one to eight or more days at a time. The conditions under which fish are maintained in the fishroom are essential in preserving fish quality throughout the trip. The fishroom must be well insulated; it must have good drainage; all contact surfaces must be easily washable and it must be free from taints and odours. Ensure that the hold is thoroughly cleaned and rinsed at the end of every trip.

Cleaning chemicals

It is essential that the correct food-safe approved chemicals are used for the applications outlined above.

Vessels are strongly advised to take professional advice when selecting chemicals, for a number of reasons:

- It can make a significant improvement to the boat's hygiene standard, even if the effects of this are not visible.
- Some chemicals may react with certain metals such as aluminium, which may be present in equipment on board.
- The use of the wrong chemical such as an engine room degreasant does not provide any sanitising effect on work contact surfaces.
- The correct dilution rates and application methods will be advised.
- Chemicals that have a strong residual taint such as bleach will more than likely taint some fish at some point on board the boat.
- Always ensure that your supplier provides you with the relevant chemical data sheets for the products you use.

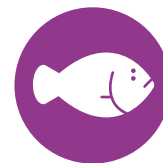
In addition, persons involved in the application of cleaning products must be fully instructed in their safe and correct application. Chemicals must be correctly stored away from working areas.

Records

As part of a well-managed cleaning schedule, boats should keep a record of the cleaning activity that takes place on board. This provides a record of the 'due diligence' the boat has undertaken to ensure that the fish landed is from a vessel which is operating a regular cleaning programme. The record then forms part of the traceable quality history of the fish landed by the vessel.

The record should also incorporate a check on the working and storage areas and equipment of the boat to ensure that once the cleaning activity has taken place that the work has been done to a satisfactory level.

2 / DEMERSAL SECTOR GUIDANCE



Methods of application and frequency

The method by which areas and equipment of a vessel should be cleaned will depend upon their use, and how heavily soiled they becomes during use.

- In many cases simple hosing down of work areas at regular intervals to prevent build-up of fish and marine debris is sufficient.
- When it comes to thorough clean-downs, a number of applications can be used: areas can be manually scrubbed down with cleaning solutions, or vessels may utilise the use of a power hose to apply high pressure cleaning with built-in chemical applicators.
- Some items of equipment can be soaked in sanitising dips; rinsing off should be carried out with either clean seawater or fresh water.
- A thorough clean-down at the end of a trip is essential. Failure to clean effectively at this time will result in a high build-up of bacteria. It is recommended that a refresh clean is carried out on a vessel before fishing starts at the beginning of the next trip.

It is essential that the correct chemicals are used for the various jobs. There are differences between the function of each chemical that can be used to properly clean a fishing vessel.

Detergent

These are chemicals that are designed to remove organic matter e.g. fish oil, flesh and inorganic matter, e.g. engine oil, dirt, etc. from items of equipment or surfaces. They can be either alkaline or acid based and will have differing characteristics and abilities to remove materials. A very common detergent is soap.

Disinfectant

These are chemicals that are designed to kill bacteria and some also kill viruses which create biologically clean surfaces that they are applied to. They cannot clean the surface of dirt and should be used after the surface has been cleaned with a detergent, if not the disinfectant properties will tend to be compromised.

Sanitiser

This is a range of chemicals that have both detergent and disinfectant properties.

Other points skippers may wish to consider include:

- Chemicals that have a strong residual taint such as bleach can if not rinsed off correctly inadvertently taint the catch, which if occurring could have a detrimental impact on any of the quality, value, safety or marketability.
- Always ensure the crew involved in the application of these products during cleaning are instructed in their correct method of application and have the correct suitable protective equipment available and in place, prior to use.
- Always keep chemicals correctly stored away from working areas. Chemicals should never be placed in containers originally used for other chemicals, as this will compromise the safety instructions on the container which could have a potentially harmful effect on the catch and the crew member handling the product.

2 / DEMERSAL SECTOR GUIDANCE



Cleaning policy records

In order to approach the cleaning of the vessel and its equipment in a systematic way it is recommended that vessels develop policies, inclusive of cleaning schedules that clearly document activities and responsibilities. As well as ensuring a hygienic vessel it also gives the added benefit of being able to demonstrate commitments to high standards and provides a record of due diligence should issues arise with respect to catch safety and quality. These cleaning policies can additionally form part of a traceable quality history of the fish landed by the vessel.

An example of a cleaning schedule for use on demersal fishing vessels*

Area or item of equipment	Recommended frequency of clean	Method of application
Net pounds	When nets are shot away from stowage area. One full clean per trip.	Hose down. Wash down, hose rinse.
Fish working deck area	As necessary. Significant breaks in fishing. End of trip.	Hose down. Chemical clean, hose down. Chemical clean, soak, rinse.
Fish hopper or pound	Between hauls. Significant breaks in fishing. End of trip.	Hose down. Chemical clean, hose down. Chemical clean, soak, rinse.
Fish conveyor/elevator	Between hauls. Significant breaks in fishing. End of trip.	Hose down. Chemical clean, hose down. Chemical clean, soak, rinse.
Gutting tables/boards	As necessary. Significant breaks in fishing/when not in use. End of trip.	Rinse. Chemical clean, hose down. Chemical clean, leave in sanitising dip till next trip.
Grading bins	Between hauls. Significant breaks in fishing. End of trip.	Hose down. Chemical clean, hose down. Chemical clean, soak, rinse.
Gutting machine	As necessary. Significant breaks in fishing. End of trip.	Hose out. Chemical clean, hose out. Chemical clean, soak, hose out.
Fish washer	Between hauls. Significant breaks in fishing. End of trip.	Hose down. Chemical clean, hose down. Chemical clean, soak, rinse.
Baskets	Between hauls. Significant breaks in fishing. End of trip.	Hose down. Chemical clean, hose down. Chemical clean, soak, rinse.
Scales	As necessary. End of trip.	Rinse platform. Chemical clean and rinse platform, and wipe down keypad.
Hold	End of trip.	Chemical clean for all surfaces; soak, and rinse off. Ensure no residual taint – use fresh water to rinse.

* Not all areas shown above will be present on all vessels.

2 / DEMERSAL SECTOR GUIDANCE



- When commencing a trip; any exposed fish handling areas and containers especially on open decked boats, should be recleaned before the first fish are taken onboard.
- Note that in reference to applications referring to a hose and/or rinse down, clean seawater or, if in harbour, fresh water, should be used.
- Never use harbour water for cleaning applications.

3 / GLOSSARY

ABC

Ambient	The temperature of the surrounding environment.
Bacteria	A group of single-cell living organisms. Some may spoil food and some may actually cause illness.
Clean seawater	Natural, artificial or purified seawater or brackish water that does not contain micro-organisms, harmful substances or marine plankton in quantities capable of directly or indirectly affecting the health quality of food.
Clean water	Means clean seawater and fresh water of a similar quality.
Cleaning	The removal of food residues, dirt, grease and other undesirable debris.
Cleaning schedule	Written document setting out how a boat is to be kept clean. It will detail each area and piece of equipment to be cleaned; the cleaning product to be used; person/s with responsibility for carrying out cleaning; standard of cleanliness required; frequency; and Health and Safety precautions to be taken. All persons concerned must be aware of their individual responsibilities. A supervisor is responsible for checking the total cleaning process.
Cold store or freezer	Equipment for keeping food at frozen temperatures. Usually set around -18°C.
Compliance	Actions that satisfy the legal requirements.
Contact surface	Any surface which comes, or may come, into contact with fish, either directly or in such close proximity that it could contaminate the food if dirty. Includes work surfaces, containers and equipment.
Contamination	The introduction or occurrence in food of any microbial pathogens, chemicals, foreign material, spoilage agents, taints, unwanted or diseased matter, which may compromise its safety or wholesomeness.
Core temperature	The temperature at the centre of a mass or piece of food.
Disinfection	Reduction in levels of contamination on food equipment or in food premises, normally by the use of chemicals to kill micro-organisms. Disinfectants used must be suitable for use in food premises.
Hygiene	Measures to ensure the safety and wholesomeness of food.
Infestation	Entry and survival of pest animals and insects on board the boat or within equipment or products.
Packaging	Means the placing of one or more wrapped foodstuffs in a second container, and the latter container itself.
Personal cleanliness	Measures taken by food handlers to protect food from contamination.
Pest	Animal life unwelcome in food premises, especially insects, birds, rats, mice and other rodents capable of contaminating food directly or indirectly.
Potable water	Means water meeting the minimum requirements laid down in Council Directive 98/83/EC of 3 November 1998 on the quality of water intended for human consumption.
Primary products	Products of primary production including products of the soil, of stock farming, of hunting and fishing. (EU Definition as 852/2004).

3 / GLOSSARY



ABC

Processed products	Foodstuffs resulting from the processing of unprocessed products. These products may contain ingredients that are necessary for their manufacture or to give them specific characteristics.
Protective clothing	Clothing – hats, boots, waterproofs – worn by the crew when handling fish to prevent contamination of fish by the individual.
Refrigerated hold	Area of the boat fitted with equipment to keep product cold. Normally between 0°C and 2°C.
Spoilage	Fish deterioration resulting in off flavours, odours and possibly appearance indicating products are unsuitable for sale or to eat.
Taint	Contamination of food with undesirable flavours or odours.
Unprocessed products	Foodstuffs that have not undergone processing, and includes products that have been divided, parted, severed, sliced, boned, minced, skinned, ground, cut, cleaned, trimmed, husked, milled, chilled, frozen, deep frozen or thawed.

**Did you find the information in this guide useful?
Is there anything we could have done better?**

We would love to hear your feedback so please contact
Mick Bacon on michael.bacon@seafish.co.uk with
your comments.

Seafish
18 Logie Mill
Logie Green Road
Edinburgh
EH7 4HS
t: 0131 558 3331
f: 0131 558 1442

Seafish
Origin Way
Europarc
Grimsby
DN37 9TZ
t: 01472 252300
f: 01472 268792

e: seafish@seafish.co.uk
w: www.seafish.org

SEAFISH

