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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.

Segment Two – Temperature Control

INTRODUCTION

Getting the right temperature is often the key to success in a good fried fish business.

AIMS OF THE SEGMENT

By the end of this segment you will be able to:

- Outline some of the requirements of the Temperature Control Regulations;
- State the ideal temperature to store:
 - (i) fish;
 - (ii) potatoes;
 - (iii) some other foods;
 - (iv) frying media;
 - (v) pre-mixed batter;
 - (vi) food on display.
- State the health hazards resulting from incorrect storage;
- Name the Act covering the supply of 'unfit' food.

FOOD SAFETY (TEMPERATURE CONTROL) REGULATIONS 1995

These Regulations specify the temperatures at which a wide variety of foods should be kept. Some foods are exempt from these Regulations and the temperatures at which different foods are to be kept are standardised. In Scotland the Regulations covering temperature control are slightly different to those in the rest of the UK.

- **Who is affected?** - All types, from mobile retail vans to multi-national processing businesses.
- **What temperatures apply?** - Food must be kept either hot or cold.

	In England/Wales	In Scotland
• HOT	at or above 63°C	at or above 75°C
• COLD	at or below 8°C	refrigerated in a cool ventilated space

Temperatures between **8°C and 63°C** are referred to being in the **danger zone**. This is when bacteria multiply to dangerous levels in food, which can lead to food poisoning.

You should note that these temperatures do not apply to chilled fishery products which should be kept colder, at or close to the **temperature of melting ice**. Fishery products and other foods can be kept at temperatures higher than 8°C for short periods of time while processing etc.

- **What foods are covered ?** - A long list of foods are covered by the Regulations. The main thing they all have in common is that without temperature controls the food might support the multiplication of harmful bacteria or the production of toxins (poisons) and so lead to food poisoning.

There are some products, which should be kept at lower temperatures for safety reasons. We have already seen that chilled fish is kept colder, but other foods such as some cook-chill meals, or vacuum-packed foods should be kept close to 0°C.

- **What Other Temperatures Apply ?**

Frozen Foods	-18°C for most frozen foods -12°C for ice cream etc.
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In Scotland there are Regulations for reheating food.

Cooked food that is being reheated must be heated to 82°C or more.

STORAGE TEMPERATURES

Uncooked food

Fish	-	frozen	-18°C
	-	unfrozen	0°C to 4°C

Meat (e.g. Sausage)			0°C to 5°C
Meat with Pastry (e.g. pies)			5°C to 8°C

Poultry	-	frozen	-18°C
	-	unfrozen	0°C to 4°C

Dairy Produce

Butter	-	dairy	0°C to 4°C
	-	frozen	-18°C

Cheese)		
Milk)		0°C to 4°C
Margarine)		
Eggs)		

Flour			5°C to 10°C
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Mineral Waters			2°C to 3°C
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Cooked food on display			+63°C
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Hot food should first be cooled as quickly as possible but for not longer than 1½ hours, before being replaced in the refrigerator at about 4°C.

Any food that is past its sell by date should be disposed of. Remember this will impact on your profits.

HEALTH HAZARDS



If you don't store or cook food at the correct temperatures you are risking the health of your customers.

Incorrect temperatures during storage will encourage the growth of bacteria and your customers could end up with Salmonella food poisoning. Definitely not good for business!

The legislation, which covers the sale of unfit food, is in the **Food Safety Act (1995)** and subsidiary regulations. These put the responsibility clearly on you to ensure that all food that is sold from your shop is fit for people to eat. You must therefore realise what an important role temperature has to play in this.

PIES



Pies could present a particular health hazard if you do not take sufficient care.

Pie Care

Good sales are dependent upon selling pies really fresh and really hot. Some of the following points may prove helpful.

- Cold meat pies must never be stored in a temperature over 8°C.
- The perfect temperature of pie storage is 5°C.
- Pies that have been kept in a refrigerator should be used quickly when taken out.



Remember – refrigerated goods deteriorate rapidly when they return to normal temperature.

- Did you know that mould can develop in a refrigerator? For this reason it is a mistake to keep pies too long even under refrigeration.
- Deep frozen pies must be used immediately after removal from the freezer.
- Hot pies should be served hot i.e. over 63°C and should first be heated as quickly as possible; above 70°C for two minutes or 65°C for ten minutes.
- Hot pies should not be kept hot in heaters below 63°C.
- Pies deteriorate very rapidly at a lukewarm temperature – you might as well stand your pies in the sunshine, as heat them in a lukewarm heater – both practices are equally wrong.
- Pies must never be stacked on top of each other in heaters – the top pies will not be sufficiently heated.
- Hot pies should not be re-heated if they have been allowed to cool.
- Pies will quickly take up other odours and therefore they must never be stored near strong-smelling goods.

EXERCISES

Try to conduct the following exercises in order to further both your knowledge and confidence.

What do you think the temperature should be inside your refrigerator? Write your answer here. °C

Check the running temperature of your refrigerator and write down your answer here. °C

Candidate's signature and date

You have now completed the Food Safety module. Well done!