Handling and serving ice

- with food safety in mind

FOSTER
REFRIGERATOR
Blue Paper

Ice is food too!

Treat it with the same care

Ice is probably the fastest growing commodity in the hospitality and food-service industry. Demand is increasing all the time: ice for drinks, for salad and fruit presentation, for display of fish.

Yet many in the food industry forget that ice must be treated with the same care now applied to other aspects of food hygiene.

This Foster Blue Paper outlines some factors affecting the care of ice and offers a guide to good practice in accordance with the latest (1995) food safety legislation.

This can only be an advisory guide. For detailed information contact the Environmental Health Department of your local council.

What are your legal responsibilities?

Your responsibility, whether you serve ice cubes in drinks or produce large quantities of ice for food display, is to operate within the Food Safety (General Food Hygiene) Regulations 1995.

These laws could apply to anyone who handles or sells food, or who cleans equipment used for food.

In every aspect of the regulations, ice is considered to be food. You and your staff must therefore produce, store and supply ice in a hygienic way, paying attention to potential hygiene hazards and making sure that safety controls are in place and regularly reviewed.

How is the law enforced?

The prime responsibility is with Environmental Health Officers (EHOs). EHOs look for safe handling of ice in much the same way as they check for good practice regarding other foods.

Here are just some of the tests that EHOs regularly apply in their visits (which can take place at any time).

Equipment is tested for Total Viable Content: in other words the EHO takes a swab to measure the levels of bacteria in any piece of equipment. EHOs may sample ice making machines, storage bins, the ice bucket on your bar, even the tongs you use.

Equipment is examined closely for general cleanliness and mould growth. EHOs report that ice makers are among the most neglected pieces of equipment when it comes to cleaning!

The water source for your ice is examined. Ice should be made only from 'potable' water i.e. clean drinking water from your cold mains supply. There should be no possibility that the water used has been contaminated in any way, so you must never use water from taps which are used for hand-washing.

The procedures used in your handling of ice can also be examined. What do you use to serve ice: spoon, tongs, a glass? Do staff handle ice directly? If so then they must be as diligent about hand-washing as any of your kitchen staff who are involved in food preparation. It is not appropriate for busy bar staff to handle ice for drinks directly.

What can you do to ensure good practice?

There are two key factors:

FIRST: make sure all the good practice you use with other aspects of food handling are also applied to ice. Just remember:
ICE IS FOOD TOO!

SECOND: make sure your equipment is up to the task. Don't treat ice as a side issue. Choose the best and most appropriate equipment.

Foster F 40 Ice Cuber

FOSTER
REFRIGERATOR
Blue Paper

Choosing the right ice maker

Ice makers come in many shapes and sizes and offer a variety of specialised functions. Choosing can be difficult. Look at these factors before you make your decision.

SIZE

Storage capacity may be as important as output. Choose the wrong output/storage capacity and you could either regularly find yourself short of ice, or waste large amounts of expensive ice at the end of each day.

If you are replacing a previous machine, was the size adequate? If not you might go for a slightly larger model, or have two smaller machines instead - for use in different locations.

If you are used to buying ice rather than making it, how much do you buy and how often? Do you ever run out? If you do, choose a machine that can cope with your demands and don't forget large functions. Even if these happen only once a week it will dramatically increase your need for ice.

TEMPERATURE

Ice is produced at different temperatures by different machines. All manufacturers should be able to tell you the temperature at which their machines produce ice. Look for a machine that operates at a very low temperature: the colder the ice the longer it will last in the storage bin, the ice bucket and the customer's glass.

CHECK OUT THE CUBES

Ask to see ice produced by the machine you are considering. Is it clear or cloudy? Is it visually attractive and free from flaws and impurities? Is it hard and crystal-like? If you're satisfied look again after it has been in storage for a couple of hours. How does it seem now? A really good ice maker will produce ice of long-lasting quality.

CABINET CONSTRUCTION

You need a cabinet that will be easy to wipe clean, durable enough for continuous use in a busy kitchen or bar, and impervious to rust. Look for high grade, foodsafe stainless steel. Look for build quality. Choose a manufacturer whose reputation you feel you can trust.

HYGIENIC DESIGN

Taking into account the aspects an EHO would be checking for - look at the all-important details of each machine.
In particular:

The production tray

Is it flushed automatically after every cycle? This will lower the risk of limescale build-up and provide ice that is free from impurities.

Water Filter

High quality water filters such as the everpure water filter used by Foster takes away any normal substances as well as odours and flavours

Panels and door gaskets

Make sure these are easily removable too, for hygiene, maintenance and replacement.

Storage bins

Choose equipment with one piece moulded storage bins in foodsafe plastic: no dirt traps and easy cleaning.

Connection hoses

Check that these are of durable, foodsafe material too. After all, your ice can only ever be as pure as the water that makes them.

EASY MAINTENANCE - A HYGIENE FACTOR

In any busy working environment tasks that are difficult or expensive to do will get done less often. When it comes to ice makers regular maintenance is vital for optimum operation and the hygienic production of ice.

Choose an ice maker with easy access to the electric pump motor and the refrigeration system. Maintenance will be quicker and less costly, and ice will be of a consistently higher quality.

Choose a machine whose manufacturer provides a highly skilled and reliable maintenance service.

INSTALLATION

Ensure the ice maker you choose fits the space you have available and is easily accessible to water and power connections. Does it come with an easy installation kit?

Chilling Tips from Foster

GET ADVICE BEFORE YOU BUY

Before you make a decision about an ice maker, satisfy yourself that all the manufacturers you have looked at have made a thorough assessment of your needs. Have they asked about the number and size of machines you require? Have they asked about the way you use ice, your peak production times, the layout of your premises? Or have they tried to sell you a machine quickly and without real care?

FINALLY - TAKE A CAREFUL LOOK AT COSTS

Ice making equipment varies considerably in capital cost. You will naturally want to take cost into consideration, but don't make the mistake of looking only at the capital cost.

Ask the manufacturer to explain the hourly output of each machine, then you'll know you're comparing like with like.

Secondly, take running costs into consideration. Very low price machines may use considerably more (expensive) energy and water to produce each kilo of ice.

USEFUL CALCULATIONS TO HELP YOU CHOOSE THE RIGHT SIZE MACHINE

1. There will be a higher ice usage if customers have the option to serve themselves with (additional) ice should they so wish, i.e. if the ice bucket is left on the front counter. Also, in general, the higher the standard of the bar, e.g. where cocktails are served or larger spirit glasses used, the higher the use of ice.

2. Where there is an existing bar, count the number of ice buckets diplayed. Multiply this by the number of times which they are filled or refilled in both the morning and evening services, on the busiest day.
Example: 4 buckets displayed refilled once a.m. and refilled twice p.m.

Morning 4 × 2 (one initial, one refill) - 8 ice buckets
Evening 4 × 3 (one initial, two refills) - 12 ice buckets.
Total per day (peak) - 20 ice buckets.
Therefore requirement is 20kg's daily.

3. Storage capacity may be more important than output. The Foster F 20, for example, produces 0.75kg per hour and stores 6.5kg. Once you use it all it will take another 8½ hours to fill again.

4. Half a kilo of ice per person is a good measure at a function such as a banquet or reception. The average ice bucket holds 1kg of ice- but remember that approximately 10% of this will be lost in meltage under normal conditions.

5. Don't forget flaked ice for display. To calculate how much you need, take the volume of the display in litres and then plan for 1kg of ice per litre.

A word about hard water

The relative hardness of the water in your area can affect the efficiency of your ice maker because of limescale build-up.
If the water in your area is particularly hard then use of an Ion-Clean device is recommended.

Finally…

If you are considering purchasing a new ice maker, Foster Refrigerator, the UK's leading commercial refrigeration manufacturer, can offer you detailed advice on what to look out for, as well as tips on how to ensure that your ice maker is kept as hygienically clean as possible.

For more information

Legislation information in this Blue Paper is based on current (1995/96) advice from the Department of Health and the Ministry of Agriculture Fisheries and Food.

A number of publications are obtainable giving more detail and covering individual products and specific areas of the food industry.

Write to:

Department of Health, PO Box 410, Wetherby LS23 7LN
MAFF, Food Sense, London SE99 7TT
The Publications Centre, PO Box 276, London SW8 5DT

For further information on ice making, please contact Foster.

Other Foster Blue papers include:

The ECA Scheme
The Safe Way to Blast Chill, Freeze and Thaw
Hydrocarbons in Refrigeration - What caterers need to know
The Climate Change Levy
Fire Ratings & Coldroom Panels
Food Temperature Laws
Inspection by Environmental Health Officers
Food Safety and E. Coli
HACCP- Hazard Analysis Critical Control Points
Handling and Serving Ice
CFC's, Refrigeration and the Caterer
Safe Food Storage
Plan for a Catering Crisis
Food Hygiene & Staff Training