Part 2

Safe Hospitality

HEALTH AND SAFETY AUTHORITY

Safety, Health & Welfare in Hotels, Restaurants, Catering & Bars

Part 2 - **Kitchen Equipment**

SHOULD BE READ IN CONJUNCTION
WITH Part 1 - General

Contents

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Part 2 - Kitchen Equipment

2 Kitchen Machinery/ Equipment

The definition of work equipment ranges from complex machinery to hand tools.

Butchers fined after inquiry

The managers and owners of a butchers shop have been fined a total of €20,500 after a 15-year-old boy lost part of his arm in a mincing machine without a guard.

His right hand was stuck in the machine at the butchers shop for 2 hours before medics decided to amputate just above his elbow in September.

Regulations detail the requirements to ensure work equipment can be used without risk including information and instruction, maintenance, control devices, guarding, inspection and examination, vehicle safety, lifting equipment and lifting accessories.

Many machinery accidents are caused by incorrect reassembly of machines and poor maintenance or non-use of guards. A significant number of accidents are due to inadequate isolation of machines.

Safeguards

- ✔ Where required get equipment that's CE marked
- ✔ Keep the manufacturer's instructions/ manual safe and follow the advice given
- ✔ Ensure all machines are isolated from power when not in use and especially before cleaning, maintenance, etc.
- ✔ Have equipment regularly maintained and inspected. Consider a routine inspection of all machines and equipment, e.g. monthly
- ✔ Ensure electrical equipment and electrical installations are protected from foreseeable impacts and ingress of moisture or particles
- ✔ Ensure electrical equipment is protected from danger from exposure to hazardous environments,
- ✔ Ensure proper controls are in place and machines are properly guarded
- ✔ Maintain lifting equipment
- ✔ Have lifting equipment properly examined and inspected and maintain records.
- ✔ Make sure staff receive proper training and instruction

2 Kitchen Machinery/ Equipment Cont'd

Purchasing/ Hiring Equipment

- ✔ Ensure the machine has all required safeguards
- ✔ As far as possible get equipment that's CE marked. CE marking is applicable to machinery, electrical equipment, gas appliances and PPE
- ✔ Obtain the proper instructions and any training or demonstrations
- ✔ Use the checklist in the Safety toolkit and short guide to work equipment regulations at www.hsa.ie

Guarding

- ✔ Dangerous parts must be guarded. It should be possible to clean guards easily and thoroughly and guards must be put back in place after cleaning. Machines must not be run if any guard has been removed
- ✔ Guards should be designed and made only by someone who understands the principles and standards

Drives

- ✔ Drives and transmission machinery must be enclosed by a guard or safely situated within the machine body

Feed and delivery openings

- ✔ Machine openings must not allow anyone to reach into the dangerous parts of the machine

Fixed guards

- ✔ Fixed guards must be secure, tamperproof and removable only with a tool, e.g. bolts. Toggle clamps, wing nuts and quick release catches should not be used

Electrical interlocking

- ✔ Guards opened regularly are best fitted with interlocking switches so that the machine cannot start or run unless the guard is in place

Maintenance of guards

- ✔ Guarding should be checked and maintained in proper working order. A visual examination should be made and any broken or missing guards repaired or replaced
- ✔ Interlock mechanisms should also be checked and tested to ensure they work. Broken interlock mechanisms should be replaced or repaired

2 Kitchen Machinery/ Equipment Cont'd

Machine setting

- ✔ Some machines have to be adjusted while running. Final settings sometimes have to be made once the actual product can be seen. The controls for running adjustments should be safely positioned. Machines should be set and adjustments made with the guards in position

Machine stability

- ✔ Machines should be on a secure base so that they cannot move or vibrate when in use. They may need to be bolted to the floor or worktop

Operator safety

- ✔ Machine operators should not wear loose or frayed clothing, or jewellery
- ✔ Dangerous machines should not be used if the operator is feeling unwell or drowsy (certain medicines carry a warning that they may cause drowsiness)
- ✔ Particular precautions may be required to remove the risk of long hair becoming entangled

Warning notices

- ✔ Warning notices may be displayed alongside machines to remind operators and others of the dangers they pose. Many machine suppliers provide suitable notices

No-volt releases

- ✔ New machines with exposed blades, such as slicers, are fitted with a no-volt release (NVR). This device ensures that after a power failure, the machine starts only when the control button is operated and not when it is plugged in or when the electrical power is switched back on
- ✔ If an existing machine without an NVR is to have a major overhaul it should, if possible, be fitted with a no-volt release at the same time. Consult the manufacturers for advice

Checklist

Use the checklist in the Safety toolkit and short guide to work equipment regulations at www.hsa.ie

For Further Information

Full guidance on work equipment at www.hsa.ie

Safety toolkit and short guide to work equipment at www.hsa.ie

HEALTH AND SAFETY AUTHORITY

2.1 Deep Fat Fryers (rev 1)

Burns from hot oil can be very serious. Oil takes only 6-7 minutes to heat up but can take 6-7 hours to cool down again (i.e. 60 times slower).

The main hazard associated with deep fat fryers is burns from contact with hot cooking oil or fat. Burns can be caused if the hot oil or fat splashes when food or the basket is dropped in carelessly, or if it spits or boils over if there is excess water or moisture in the food. Fire from ignition of hot cooking oil or fat is also a major hazard. Spilled or splashed oil or fat on the floor around a fryer is a major slipping hazard.

Safeguards

- ✔ Ensure all machines are isolated from power when not in use and especially before cleaning, maintenance, etc.
- ✔ In the event of a fire never put water on a fat fire
- ✔ Do not top up deep fat fryers with oil from large containers
- ✔ Lower food into the fat slowly
- ✔ Never put wet food into hot fat
- ✔ Consider improving slip resistance of surrounding flooring, e.g. use of suitable mats
- ✔ Use covers to prevent accidental immersion into hot fat
- ✔ Maintain the fryer and ensure attachments are suitable for their purpose, as recommended by the manufacturer
- ✔ Train staff in safe procedures for emptying and cleaning
- ✔ Provide suitable protective equipment, where required by the risk assessment, e.g. eye protection, heat-resistant gloves, aprons
- ✔ As far as possible no-one should have to stand on/ near deep fat fryers, e.g. to access the canopy
- ✔ If someone has to stand on/ near the deep fat fryer, e.g. to access the canopy, the deep fat fryer oil should be cooled and drained first
- ✔ For fire safety and economy, fat fryers must be switched off when unattended. It is best practice for manual oil filtering and cleaning to be carried out as a first task of the day rather than as part of the closing-down procedure

2.1 Deep Fat Fryers Cont'd

- ✔ Allow the oil to cool, ideally for at least six hours, and check the temperature using a suitable probe thermometer before draining. Do not drain if the temperature is above 40 °C

Checklist

Use the checklist in the Safety toolkit and short guide to work equipment regulations at www.hsa.ie

For Further Information

Guide on Manual Handling Risk Assessment in the Hospitality Sector at www.hsa.ie

Safety during emptying and cleaning of fryers from HSE UK at www.hse.gov.uk

Safe use of cleaning chemicals in the hospitality industry from HSE UK

See the other relevant sections of *"Health and Safety in Hotels, Restaurants, Catering and Bars"* (this document), e.g. Kitchen machinery/ equipment.

2.2 Steam Equipment (rev 1)

Steam-heated catering equipment includes steam ovens, bulk boiling pans, bains- maries, hot cupboards, steam cupboards, water boilers and some beverage machines.

The main hazards associated with steam heated equipment are explosion due to over-pressurisation, and scalding, often caused by hot water and steam escaping when the door is opened. Fittings on the steam supply, such as valves, can be very hot.

Safeguards

- ✔ Ensure all machines are isolated from power when not in use and especially before cleaning, maintenance, etc.
- ✔ Steam boilers should have a safety valve, pressure gauge, water level gauge (glass), low water level cut-out device, blow down valve and shut-off valve
- ✔ The boiler and fittings should be thoroughly examined at least every twelve months by a competent person
- ✔ Check that the water supply to the steam boiler is turned on
- ✔ Check that there is sufficient water in the steam boiler before you light the gas or switch on
- ✔ Check regularly the steam pressure is within safety limits
- ✔ Switch off the steam boiler if the pressure rises above the safe level
- ✔ Switch off the steam boiler if the water level gauge shows insufficient water
- ✔ If any steam comes from the safety valve during cooking, shut off the steam supply or heat and report immediately to the supervisor
- ✔ When cooking is complete shut off the steam valve before opening doors and lids
- ✔ Open doors and lids carefully and stand to one side to avoid contact with escaping steam
- ✔ Wait until the equipment has cooled before cleaning
- ✔ Ensure steam safety valves vent away from the operator in a safe direction
- ✔ Locate equipment so that it can be used, loaded and unloaded safely

Checklist

Use the checklist in the Safety toolkit and short guide to work equipment regulations at www.hsa.ie

For Further Information

See the other relevant sections of *"Health and Safety in Hotels, Restaurants, Catering and Bars"* (this document), e.g. Kitchen machinery/ equipment

2.3 Extract Canopies (rev 1)

The main hazard associated with fume ventilation equipment is fire caused by the ignition of accumulated grease and fat in the hood and the associated ducting.

Safeguards

- ✔ Ensure all machines are isolated from power when not in use and especially before cleaning, maintenance, etc.
- ✔ A grease filter should be installed in the ventilation hood in a readily accessible position
- ✔ If low level extract ducting is installed a grease trap (sump) should be provided
- ✔ The ducting should serve only the kitchen with no communication with the rest of the premises
- ✔ Clean cooker surfaces and hoods, and empty and clean oil and condensation channels regularly
- ✔ Remove and clean filters regularly, where there is heavy use, a spare set should be available
- ✔ Clean the inside surfaces of ducting, and fan blades, on a regular basis, e.g. in line with section 7 of the TR/19 HVCA Guide to Good Practice - Internal Cleanliness of Ventilation Systems. Before you clean ducting, switch the fan off and allow sufficient cooling time
- ✔ Never hang combustible articles such as clothes, towels and cloths over or near cooking equipment with a fume ventilation hood
- ✔ Only trained staff, using a safe means of access where necessary, should clean grease and oil from hoods, fume ducts and extraction equipment
- ✔ The training should stress the potential seriousness of fires in ventilation ductwork, and how to use correctly the fire fighting equipment provided
- ✔ Automatic fire suppression systems are now available on many canopies

Checklist

Use the checklist in the Safety toolkit and short guide to work equipment regulations at www.hsa.ie

For Further Information

See the other relevant sections of *"Health and Safety in Hotels, Restaurants, Catering and Bars"* (this document), e.g. Kitchen machinery/ equipment

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2.4 Ovens, Ranges

The main hazard from ovens and ranges is being burned. Ovens with bottom hinged doors can tilt forward if heavy meat joints are placed on the open door. Staff leaning over and cleaning behind a working oven risk burns from the flue.

There is a danger of a gas flashback if a gas oven does not light immediately or when gas has built up. There is a possibility of injury from contact with moving unguarded fan blades in a forced convection oven if the fan is running during cleaning.

Safeguards

- ✔ Ensure all machines are isolated from power when not in use and especially before cleaning, maintenance, etc.
- ✔ The handles of saucepans should not project beyond the edge of the range. Ladles or spoons should not be left in saucepans on hotplates or rings
- ✔ Before an oven or range is cleaned, it should be switched off and isolated, or the gas turned off, and allowed to cool
- ✔ Always use a dry oven cloth or oven gloves. Ensure cloths do not have any holes in them
- ✔ Metal surfaces of adjacent equipment may also be very hot
- ✔ Always stand to one side when opening an oven door, and open the door slowly
- ✔ If using a taper, make sure it is lit before you turn on the gas supply
- ✔ Make sure the gas burners light and remain alight
- ✔ If the fan interlock, if fitted, does not switch off the fan when you open the door report it to your supervisor
- ✔ Do not leave bottom hinged oven doors open
- ✔ Never use a forced convection oven if the fan guard is not in place
- ✔ Do not rest anything heavy, for example a large meat joint while basting, on bottom hinged doors

Checklist

Use the checklist in the Safety toolkit and short guide to work equipment regulations at www.hsa.ie

For Further Information

See the other relevant sections of *"Health and Safety in Hotels, Restaurants, Catering and Bars"* (this document), e.g. Kitchen machinery/ equipment

2.5 Microwave Ovens

The main hazards are burns or scalds caused when sealed containers containing hot food burst. Hot food containers and steam also cause burns. Microwave ovens can catch fire if not used properly or if their contents overheat. Poorly sited ovens can cause back strain. Poorly maintained or damaged microwaves can leak radiation and this can cause health problems.

Safeguards

- ✔ Ensure all machines are isolated from power when not in use and especially before cleaning, maintenance, etc.
- ✔ Do not put metal/ metal-decorated dishes in the microwave unless the manufacturer's handbook says this is safe
- ✔ Site microwave ovens so that food can be put in and taken out safely
- ✔ Do not cook eggs in their shells in the microwave
- ✔ Remove lids from jars and take-away food containers before you put them in the microwave
- ✔ Do not cook food in a sealed container unless it has been specially manufactured for use in a microwave oven
- ✔ Keep the inside surfaces of the oven and door clean
- ✔ Do not use the oven if the door does not close properly
- ✔ Take care when setting the time switch
- ✔ Do not use the oven if it does not switch off automatically when the door is opened
- ✔ Food containers can be very hot - use an oven cloth or oven gloves
- ✔ Remove clingfilm carefully and keep out of the way of the steam
- ✔ Never switch the oven on if it is empty

Checklist

Use the checklist in the Safety toolkit and short guide to work equipment regulations at www.hsa.ie

For Further Information

See the other relevant sections of *"Health and Safety in Hotels, Restaurants, Catering and Bars"* (this document), e.g. Kitchen machinery/ equipment

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2.6 Bains - Marie, Hot Counters and Cupboards

Hot food service equipment is available in a wide variety of forms; free standing modular units in the back bar style or larger floor-mounted units arranged in a number of different configurations.

Some units have heated shelves or lamps (infra-red or quartz) mounted over the serving area.

Bains-marie are designed for keeping cooked food hot. They may be heated by gas, electricity or steam. There are three designs:

- Open well: a large shallow trough containing heated water, normally found in kitchens.
  Pots and pans containing cooked food are placed in it to be kept hot until required for serving
- Fitted container (wet type - water or steam): similar to the open well type, except that the top is constructed so that containers can be fitted into it. Cooked food is placed in these containers to keep hot: this type is normally used in a servery
- Fitted container (dry type): similar to wet type except that containers are kept hot by he circulation of warm air generated within the appliance

A heated cupboard may be provided under a bain-marie.

The main hazards are burns and scalds.

Safeguards

- ✔ Ensure all machines are isolated from power when not in use and especially before cleaning, maintenance, etc.
- ✔ Do not touch the hot top or sides of the unit or lamps or shelves where fitted
- ✔ Before removal hold containers over the trough to let hot water or steam drip off
- ✔ Use an oven cloth or wear gloves when handling hot food containers
- ✔ Drain the heating water into suitable containers and carry them carefully
- ✔ Do not leave serving utensils projecting over the edge of the food containers
- ✔ Turn off the heat source when serving is completed
- ✔ Mobile equipment should be located near the power supply to avoid trailing cables
- ✔ Ensure electrical connections, e.g. cables supplying lights, are kept in good repair
- ✔ Ensure steam safety valves vent away from the operator in a safe direction

2.6 Bains- Marie, Hot Counters and Cupboards Cont'd

Checklist

Use the checklist in the Safety toolkit and short guide to work equipment regulations at www.hsa.ie

For Further Information

See the other relevant sections of *"Health and Safety in Hotels, Restaurants, Catering and Bars"* (this document), e.g. Kitchen machinery/ equipment

TR/19 HVCA Guide to Good Practice - Internal Cleanliness of Ventilation Systems