

## Unit 204: Awareness of sustainability in the hospitality industry

### Handout 2: Recyclable materials

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#### Paper and cardboard

Paper and cardboard are commonly used in the hospitality industry as packaging. Paper is a valuable recyclable material but only when it is clean. If you scrunch paper and it doesn't spring back, then it can be recycled.

#### Recycling process

- Remove any plastic wrapping that is attached to the paper and cardboard – this can be recycled separately.
- Paper and cardboard is taken to a recycling plant where it is separated into types and grades.
- The separated paper and cardboard are then washed with soapy water to remove inks, plastic film, staples and glue. The mixture is put into a large holder where it is mixed with water to create 'slurry'.
- By adding different materials to the slurry, different paper products can be created; such as cardboard, packaging and other paper.
- The slurry is spread using large rollers into large sheets and the paper and cardboard is left to dry. It is then ready for use.

#### Plastics

Plastic is commonly used in the hospitality industry. It is a valuable recyclable material but only when it is clean. Plastics include shampoo bottles, fizzy drink bottles, etc. The majority of plastic is non-biodegradable – approximately 8 million metric tonnes of waste plastic enters the Earth's ocean every year.

#### Recycling process

- Empty and rinse plastics. Leftover foods or liquids can contaminate other recyclables. Squash plastic to save space.
- Plastic is taken to a recycling plant where it is separated and sorted into types and grades.
- Plastic is ground down into chips and pellets after sorting is complete.

- The chips and pellets are washed in a bath, before being dried and then melted. Once melted, the material is formed into pellets to be used in another plastics materials.

## Metals

Metals can be classified as ferrous, or non-ferrous. Non-ferrous are commonly used in the hospitality industry, such as aluminium cans and tins. They are a valuable recyclable material but only when they are clean, so it is important to ensure that there is no residue liquid or food in them before recycling.

### Recycling process

- Metals are collected and taken to a treatment plant.
- At the treatment plant, the metal is sorted into different types and cleaned ready for reprocessing.
- It then goes through a re-melt process and turns into molten metal. This removes the coatings and inks that may be present on the metals.
- Metals are formed into specific shapes, such as bars, which can be easily used for the production of various metal products such as cans and tins.

## Glass

Glass is commonly used in the hospitality industry. It is a valuable returnable packaging. However, some organisations are going glass-free in the kitchen to prevent accidental contamination.

### Recycling process

- Empty and rinse glass. Leftover foods or liquids can contaminate other recyclables.
- Glass is taken from the bin and taken to a glass treatment plant.
- The glass is sorted by colour and washed to remove any impurities.
- The glass is then crushed and melted, then moulded into new products such as bottles and jars, and even used in bricks.

## Food

Most waste food ends up in landfill sites where it rots and releases methane, a damaging greenhouse gas. Avoiding throwing out food that could have been eaten will save the business money and help reduce greenhouse gas emissions. However, some food waste is inevitable.

## Recycling process

- Waste food can be composted. This involves mixing food waste with garden waste, shredding it and then composting it in an enclosed system for around 2–4 weeks.
- Food waste can also be treated using a method called anaerobic digestion. This uses microorganisms to break-down food waste. It gives off methane, which is collected and converted into biogas and used to generate electricity.

## Hazardous

Hazardous waste comes in many shapes and forms: it can be liquids, solids, contained gases or sludge, and it is often poured down sinks or added to the regular waste stream (such as pouring cleaning and disinfecting products and oils down the sink). This contributes to the pollution of our land and water.

Other hazardous waste can come in the form of solid items, such as batteries and light bulbs.

All hospitality organisations are legally responsible for the safe and correct disposal of hazardous waste. Not following proper procedures and regulations can result in not only damages to the environment but also significant fines.

Organisations should arrange to have hazardous waste removed by waste removal companies.

## Non-recyclable

Non-recyclable materials are usually disposed of at landfill sites. The waste is usually buried and covered with organic material such as earth. Waste sent to landfills can take many years to break down and can pollute the ground and produce harmful gases such as methane.

Non-recyclable materials may include items that need to be disposed of in a certain manner to protect the environment and to comply with waste regulations. This may include items such as:

- batteries
- paints
- electrical equipment.