



Getting it sorted

Materials Recovery Facilities



Freephone Helpline
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zerowastescotland.org.uk

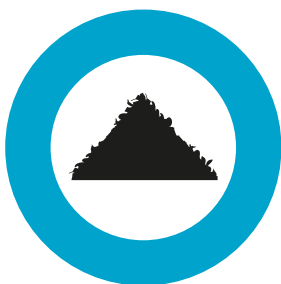
Overview

Materials Recovery Facilities (MRFs) take in mixed recyclables and sort them into different material types (paper, rigid plastic, plastic bottles, aluminium, steel, etc.) so they can be reprocessed.

There are also some MRFs which take in “black bag” or “mixed” waste and remove recyclables, usually metals and some plastics. These recyclables are sent for reprocessing and the remaining non-recyclable waste can be treated or sent for disposal.

Different MRFs remove different materials at different stages in their processes and they can use different technologies to separate the same types of materials.

What goes in?



Mixed recyclables

Or **General waste/
black bag waste**



What happens?



Large items and non-targeted materials are removed.

Trommels & screens:

Remove fines (small pieces). They can also separate paper.



Magnets & eddy currents:

Separate metal items like steel and aluminium cans.



Weight-based separators & vibrating plates:

Separate heavy materials from light materials.



Optical sorters: Can separate plastic into different types.

What comes out?



Separate recyclable materials: MRFs will sort into different types of materials (e.g. aluminium cans, steel cans). The number of different material streams will depend on what is collected and accepted.

Material for disposal/thermal treatment: MRFs that take in mixed waste will send out a reduced quantity of waste for thermal treatment or landfill as some of the input material will be sorted and extracted for recycling. Mixed recycling MRFs will also send out some material for thermal treatment or disposal where the incorrect types of materials have been put out for collection.



Glossary

Hazardous material

Some materials are designated as hazardous or special waste because of their properties (e.g. poisonous, harmful to the environment, etc.). Not all facilities can accept hazardous materials/special waste. For more information, please see SEPA's website.

Non-recyclable waste (general waste)

Often known as black bag waste or mixed waste, it is a mixture of discarded materials (rubbish) collected within the same bag or container and which is not recycled.

Non-targeted material

Materials which are not accepted by the facility and cannot be sorted for recycling.

Reprocessing

The process of turning material which has been collected for recycling into new products.

Treatment

A type of process which reduces the quantity of input material either by using heat (thermal treatment) or a biological process. They also produce heat, electricity, fertilisers or other outputs.

Further information

Zero Waste Scotland (ZWS)

For more information on Zero Waste Scotland, its work and research, please visit: www.zerowastescotland.org.uk

For more information on waste facilities and how they are developed, please visit: www.zerowastescotland.org.uk/infrastructure

Scottish Environment Protection Agency (SEPA)

For information on waste regulation, licencing, data and more detailed technical information on facility types and the standards they are required to achieve, please visit:

www.sepa.org.uk

Recycle for Scotland

For more information on how to reduce, re-use and recycle, please visit: www.recycleforscotland.com

Videos

To watch videos explaining what different facilities do, please visit: www.recycleforscotland.com/facts-figures/facts-figures

Chartered Institution of Wastes Management (CIWM)

For more detailed and technical information on different facilities and on waste management issues in general, please visit: www.ciwm.co.uk

Renewable Energy Association

For more information on thermal and biological treatment facilities which create energy from waste, please visit: www.r-e-a.net/renewable-technologies

Environmental Services Association

For more information on waste management and the different types of facilities, please visit: www.esauk.org/



For more information about Zero Waste Scotland's terms and conditions, please visit www.zerowastescotland.org.uk/content/terms-conditions

If you have any questions please contact data@zerowastescotland.org.uk