

Aircraft Cabin Waste Recycling Guide

Introduction

Studies have identified that over half of all aircraft cabin cleaning waste could be recycled, with newspaper and magazines making up by far the majority of waste by weight.

Recycling is now part of many airlines' and airports' company policy and recycling is increasingly expected by passengers. Recycling will also help to reduce costs of waste disposal.

There have been a number of individual recycling initiatives in recent years including collections of cans by Thomas Cook and First Choice. However, there were many barriers to the implementation of larger scale recycling of waste on-board aircraft, including

- Space and time pressures on cabin crew to collect materials separately and therefore a preference by airlines to collect recyclable material mixed in a single bag
- Differing understanding of what can and cannot be widely recycled, and which materials should not be collected together
- A lack of facilities at airports to deal with mixed materials, although facilities for separate recyclables have been available for some time
- Differing understandings of what constitutes International Catering Waste (Cat 1 ICW) and how this affects recycling.

- Food, including Cat 1 ICW within cabin cleaning waste, contaminating recyclables.
- Differing guidance from Animal Health Officers to airports on sorting of mixed aircraft cleaning wastes
- Engagement of cabin crews and development of new cabin procedures
- Engagement of aircraft cleaning staff and lack of environmental requirements within cleaning contracts.

A working group of airlines, airports, cleaners and catering companies has therefore developed this simple practical guide for recycling aircraft cabin waste into UK bases.

The aim is

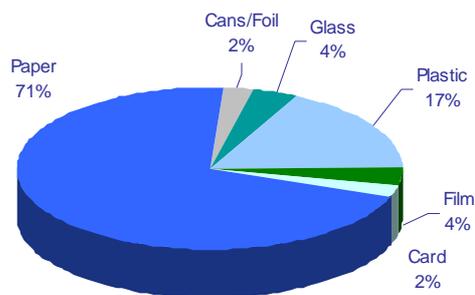
- to allow any airline to develop a set of cabin procedures for collecting recyclables that can be successfully used on routes into all UK bases
- to allow all UK airports to set up appropriate waste contracts and facilities to recycle the collected material
- to set standard rules for the collection, storage and handling of recyclable material
- to look at the issue of food waste and work with Animal Health Officers to agree more consistent approaches to sorting aircraft waste.

Background

Waste Composition

The composition of aircraft waste can vary considerably, dependent on whether the flight is long or short haul, low cost, full service or charter and dependent on the cabin service provided by each airline.

Audits have shown that within cabin cleaning waste there is a high proportion of recyclable material, and in particular, newspapers and magazines. For maximum impact, efforts should focus on collection of these materials.



Animal By-Products Regulations

The Animal By-product Regulations 2005 puts restrictions on how International Catering Waste (Cat 1 ICW) can be handled, stored and disposed of in order to prevent the spread of disease.

This covers any catering waste from non-EU flights, and specifically meat, fish and any product of animal origin such as milk, cheese, honey etc, and any other waste mixed with it.

This means that waste from sandwich and other snack meal services are covered by the regulations, in addition to traditional hot meal trays returned to caterers.

Except at smaller airports with very few non-EU flights it is usually very difficult to distinguish between waste from EU and

non-EU flights once it has been off-loaded by cleaning companies. Therefore any restrictions on Cat 1 ICW must apply to all food waste.

During turnaround cleaning, Cat 1 ICW and other food waste could be in any of the following:

- catering trolleys
- galley waste bag
- galley trash compactor boxes
- bagged waste collected by cabin crews following meal services
- back-hauled waste
- cabin cleaning by cabin crews or cleaners

Where Cat1 ICW is present, the whole bag of waste is considered contaminated and is therefore all Cat 1 ICW.

It is not permitted for Cat 1 ICW to be deposited in airport waste facilities at many UK bases including Heathrow, Gatwick, Edinburgh and Glasgow. This is to allow the residual cabin waste to be sorted to extract recyclables.

This approach is likely to be adopted by other airports and therefore it is preferable for contracts to be set up for the catering company to remove galley waste bags and trash compactor boxes, rather than the cleaning contractor.

Bags of clean mixed recyclables collected by cabin crews are not affected and can be sorted for recycling.

Sustainable Aviation

The issue of waste and recycling within the aviation sector is now being reviewed as part of the Sustainable Aviation agenda. This will allow the development and communication of further initiatives to reduce the environmental impact of aircraft cabin services.

Materials to be Collected

Mixed Materials For Recycling

Any combination of the following materials may be collected together by cabin crews for recycling.



Newspaper, magazines, printer paper



Water and soft drinks bottles



Plastic drinks cups



Drinks cans



Cardboard boxes and packaging

Materials contaminated with meat and fish products should not be collected under any circumstances.

These are the minimum standards that can be handled by all UK airports with recycling facilities and therefore allow an airline to set up a single set of procedures for crews no matter which base they are operating into.

However, local variations in recycling facilities do exist and it may be possible to collect additional materials by agreement with individual airports.

The following **MUST NOT** be put into the bags of mixed recyclables.

Meat and fish products and any material in contact with it.	Food waste including hot and cold food trays, sandwiches etc.
Glass	Glass bottles cause a health and safety hazard for the people manually sorting the waste, and also cause contamination of the other recycling streams to the point that they may be rejected and landfilled instead of recycled. However, it is possible to set up a separate collection of glass for recycling if appropriate. (See below)
Tetrapak	Facilities for recycling tetrapaks are not currently widely available in the UK as the plastic liner is difficult to separate from the cardboard outer packaging.
Paper napkins	These are a low grade of paper and have a higher risk of being contaminated with food.
Shrink wrap, plastic bags	This is more likely to be contaminated with food items and therefore is not to be collected at this time.
Composite packaging	Items with a mix of materials such as card and plastic. This includes some coffee cups and Pringles tubes.

Collection Methods

Mixed Recyclables Collections

Each airline will set their own cabin procedures to collect the materials for recycling. This may include one or more pass through the cabin

- following a drinks service to collect cans, plastic bottles, plastic cups and aluminium cans
- following a meal service
- prior to landing to collect newspapers and magazines
- following restocking with catering items to collect cardboard packaging
- following passenger disembarkation during turnaround cleaning where this is undertaken by the cabin crew

Newspapers and Magazines

Newspapers and magazines could be collected:

- by cabin crews within mixed recyclables bags as above
- by cleaners collecting the papers and magazines separately from other waste when cleaning the cabin
- by airlines encouraging passengers to put papers into a separate bag at the front of the aircraft during disembarkation
- by cleaners collecting in-flight magazines during turnaround checks and bulk changes



Glass Collections

Providing that specific arrangements have been made with the cleaners, caterers and/or airport company for offloading and recycling, a separate collection of glass bottles may be undertaken

- by returning bottles to drinks trolleys for recycling by caterers
- by a separate collection within the galley, for off-loading by caterers or cleaners.
- prior to take-off on certain flights.

Collection Bag

Materials will be preferably collected into a green tinted bag. Alternatively a clear bag may be used.

The tint should be slight enough to allow the contents of the bag to be clearly seen.

A green tinted bag was agreed as the preferred bag for recyclables. The bag needs to be sufficiently transparent to allow the cleaners and the people sorting the waste to check that the bags contains only recyclable material **before** it is opened, and in particular that it does not contain food waste.

The green tint has environmental connotations and is not used by airlines or caterers for other waste streams on the aircraft. The use of a coloured tint rather than lettering is more quickly identifiable by crews and cleaners especially in confined spaces and poor light.

Bags should be securely tied to ensure that the contents do not spill out.

On-board Storage and Stowage for Landing

The recyclable material should be stored separately from other waste during the flight and for landing.

Separate storage for landing helps cleaning staff to quickly identify a bag of recyclables and therefore help them to keep it separate for recycling.



Off-loading and Recycling

Cleaning Contracts

Airlines should include their requirements for recycling within contracts with cleaning companies. This can include:

- off-loading of bags of mixed or separate recyclables that have been collected by cabin crews
- separate collection of newspapers and magazines during turnaround cleaning
- recycling of in-flight magazines discarded during turnaround checks and bulk literature changes.

It should also form part of discussions with cleaning contractors at each local base.

Many cleaning companies will off-load recyclables and recycle bulk literature changes within the terms of current contracts as this does not require additional resource. However, the inclusion of recycling within contracts provides a mechanism to audit and provide feedback on the success of recycling initiatives.

Contracts should require all food waste to be returned to the catering company for handling as Cat 1 ICW.

This includes:

- Catering waste
- Galley Waste bags
- Trash compactor boxes.

Transfer to Recycling Facilities

Aircraft cleaning companies should keep bags of recyclables separate from other waste and put into the correct container at the airport waste disposal site.

Bags of recyclables should be given a preliminary visual check, and any bags containing food rejected and redirected into the appropriate Cat1 ICW waste facilities without the bag being opened.

In-flight magazines collected during bulk literature changes can be recycled at all UK airports. Surplus and old stock can also be recycled.

Airport Waste Facilities

The Airport Company (or cleaning company) shall make provision for material collected by airlines to be recycled. This may include:

- Separate containers for recyclable materials, especially paper and cardboard
- Containers for mixed recyclables
- On or off-site sorting of mixed recyclables
- On or off-site sorting of all cabin waste

The waste disposal contracts held by each airport and the availability of sorting facilities within the local area will dictate whether waste is sorted on or off-site

The presence of food waste considerably hampers the ability to sort mixed cabin wastes.

Containers for recycling should be located next to containers for waste and should be clearly labelled, preferably using the WRAP branding to aid recognition.

The Airport and waste contractor shall agree with Animal Health Officers appropriate protocols for dealing with any food waste found within the waste being sorted, and for its disposal as Cat 1 ICW.

Communication

Communication between airlines, cabin crew, cleaners, caterers and airports is key to the continued success of any recycling project.

This guide was developed as a result of collaborative working by all parties and this should continue by sharing information and best practice between companies.

WRAP Branding



WRAP branding should be adopted by all parties for all communications about recycling. It can be used for:

- Communication with cabin crews
- Communication with passengers
- Communication with cleaning staff
- Labelling of containers and recycling facilities

WRAP (Waste and Resource Action Programme) branding was initially developed for use by local authorities for domestic kerbside collections and bring sites and is also being used on recycling facilities in public places. There is increasing recognition of the branding and increasing consistency across the UK.

This will help to encourage staff to bring their good recycling habits from home into the workplace and will also be recognised by passengers.

The branding includes the recycle logo and material recycling logos and can be downloaded for free from www.recyclenowpartners.org.uk.

There are specific brand rules that must be followed when using the branding.

Engaging Staff

Ways to engage and encourage cabin crews and cleaning staff to recycle could include the following:

- Understanding barriers to recycling
- Identifying triggers to encourage recycling
- Clear messages on which materials can be collected
- Explaining contamination and why it is a problem
- Reviewing cabin service provision to more easily allow recycling
- Considering impacts on service times and options to reduce these
- Identifying Environmental Champions within crews
- Making use of competitiveness between crews
- Obtaining feedback from cabin crews
- Providing information on where material collected goes and what it is made into.
- Financial or other incentives
- Sharing knowledge with other airlines



Monitoring and Feedback

Ongoing monitoring and feedback is essential to ensure the long term continuation of any recycling scheme. This should include checks on collections by cabin crews, material deposited into recycling containers by cleaning contractors and on the quality of material collected and should be base specific.

Airlines

Airlines can monitor the success of the recycling initiative by:

- Inviting verbal and written feedback from crews
- Adding recycling to existing post flight forms
- Inclusion in mystery flyer audits
- Random checks during turnaround
- Base specific discussions on recycling between airlines and cleaners
- Periodic waste composition analysis
- Providing feedback to crews especially on contamination issues
- Requesting bag counts from cleaning companies
- Random audits to check cleaning companies are recycling the material

Cleaning Companies

Cleaning companies can provide feedback to airlines and airport including:

- Bag counts on recyclables
- Feedback on quality and quantity to airlines
- Feedback to airports on waste facilities

Airports

Airports can monitor the success of recycling and provide feedback to cleaning contractors and airlines by:

- Providing feedback on quantities and quality and especially contamination
- Providing updates on where material is sent for recycling
- Periodic waste composition analysis

Collection of mixed materials for recycling on board aircraft is only one element in a wider programme to address waste from airline cabin services.



Next Steps

The working group are now progressing a number of additional ideas to reduce waste and increase recycling. These currently include the following:

Product Specification

Review of cabin and catering services to include environmental considerations such as use of recycled materials and specification of products that are more easily recycled.

Cleaning Contracts

Inclusion of recycling requirements within aircraft cleaning contracts. This also helps to provide a basis for monitoring and feedback.

Food waste issues

Ongoing dialogue regarding the handling and disposal of material contaminated with food waste.

In-Flight Catering Centres

Sharing best practice on recycling at in-flight catering centres whilst complying with the requirements on Cat 1 ICW.

Increased Recycling of Residual Waste

Options for off-site sorting and treatment of cabin waste to recover recyclables, whilst complying with the requirements on Cat1 ICW.

Data Gathering

Collation of data on waste levels from the UK aviation sector and current and potential recycling performance.



Contacts and Further Information

This guide has been developed and is supported by the following companies to date:

Airports

Manchester Airport
Heathrow Airport
Gatwick Airport
Stansted Airport
East Midlands Airport
Edinburgh Airport
Glasgow Airports
Liverpool Airport
Birmingham International Airport
Leeds Bradford Airport
Belfast International Airport
Belfast City Airport
Luton Airport
Newcastle Airport
Bristol Airport
Southampton Airport

Further Information

Further information on this guide or on the Airline and Airport Recycling Group can be obtained from:

Sue Hodnett
Environment Adviser
Manchester Airport

sue.hodnett@manairport.co.uk

0161 489 3650

Airlines

Thomas Cook Airlines
flybe
Monarch Airlines
British Airways
Virgin Atlantic
Thomson Airways
BA CitiFlyer
bmibaby
easyJet
jet2.com

Service Partners

LSG Skychef
Derichebourg
ASIG
Gate Gourmet
The Caterers

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