



ACA RECOMMENDED PRACTICES REGARDING WASTE RECYCLING FOR AIRLINE CATERERS

September 2024, ed. 1

1. Introduction

It is an established fact that in most countries food waste coming out of an aircraft from outside the national borders is to be considered as category 1, without distinction. This fact has shaped inflight catering to what it is today. There have been, however, in the last decade a few developments of various natures calling into question this rigid approach.

Firstly, the boom in international flights has been such that the amount of food waste accumulated is rapidly becoming problematic, from a political perspective as well as from a societal one¹.

Secondly, the ICW legislation in force in the vast majority of the International Civil Aviation Organization (ICAO) Member States has not been reviewed when they were first put in place several decades ago without due consideration to the progress in terms of prevention of epidemic. Worse even, it has been demonstrated that in the case of the European Union for instance, there is no evidence that a risk assessment has been properly conducted before adoption of the Regulation², thus questioning its scientific value. All the more so as there seems to be no literature existing that can demonstrate that this route of infection has been the source of an outbreak of infectious animal disease even prior to the adoption of the regulations³.

Thirdly, ICW regulations act as an impediment for airlines and onboard catering companies to do their part in the implementation of a more circular economy and are at odds with the obligation to reduce the amount of waste produced and to increase the proportion of recycled products. The recent legislation in the European Union on the elimination of single-use plastics (SUPs) is a case in point⁴.

In any case, ACA and its members, the onboard catering companies, are fully dedicated to do their utmost to help increase cabin waste recycling within the boundaries of the national legislation in place. This short guidance document is aimed at contributing to this objective by complementing another guidance document published by IATA regarding onboard waste segregation⁵.

¹ According to the Aviation Sustainability Forum (ASF), up to 3.6m tons of cabin waste was produced in 2024, with 65% of it being food and beverage waste.

² Regulation 1069/2009 laying down health rules concerning animal by-products not intended for human consumption.

³ Food Control Consultants Ltd., “*International Catering Waste – A Case for Smarter Regulation*”, July 2024.

⁴ Directive (EU) 2019/904 of the European Parliament and of the Council of 5 June 2019 on the reduction of the impact of certain plastic products on the environment.

⁵ International Air Transport Association (IATA), “*Guidance for Recycling from International Flights*”, May 2015.

The Recommended Practices presented in this document are intended to assist airline caterers in developing programs for the segregation, collection and handling of recyclable materials off aircraft to be recycled and re-used to prevent unnecessary disposal.

The objective is to provide a framework which:

- ensures that caterers and airlines operators are able to meet the requirements of the regulatory regimes found globally.
- is flexible enough to accommodate a wide variety of caterers' operating models.
- incorporates best waste management practices from within the aviation industry.
- increases waste recycling, re-use and develops circularity.

2. Roles, Responsibilities and Definitions

2.1 Caterers

Airline caterers collect galley waste from the aircraft. They may also handle recyclables such as newspapers and magazines for home carriers. Caterers may or may not use the airside waste facilities provided by the airport operators.

Galley waste usually contains food residue and may be classified as International Catering Waste (ICW in Europe or Regulated Garbage in the US), which may require different handling procedures in some countries. Airline caterers may also collect recyclables separated by airline operators.

Caterers should ensure, through contractual conditions or incentives, that the waste management contractor and recycler aim to maximize the quantity of waste recycled.

2.2 Airline operators

Airline operators should be able to determine the extent to which their waste could be recycled in their route network and should also ensure sufficient and proper recycling infrastructure on all aircraft types.

Although there is currently no global standard for labelling of recyclables, it is recommended that all airline operators adopt a uniform segregation system, either colored recycling bags, labeled bags or specific container, to simplify and standardize waste identification and collection by airline caterers or aircraft cleaning companies, and to avoid the risk of cross contamination of recyclables with non-recyclable waste and/or ICW.

Airline operators should, through contractual conditions or incentives, ensure that caterers are provided with sufficient equipment, trained staff and monitoring procedures to handle recyclables from aircraft.

Airline operators should determine if caterers have the infrastructure, equipment, trained staff and monitoring procedures to handle recyclables from aircraft and monitor recyclable material volumes.

2.3 Shared responsibility

Caterers and airline operators should conduct the following assessments together to ensure common understanding of the recycling processes:

- Sources (e.g. galley, passengers), types and quantities of recyclables from aircraft
- Level of separation: co-mingled or separated
- Collection methods: colored recycling bags, labeled bags or specific container
- On-board stowage locations and recyclable collector
- Analyze reuse options
- Protocols to facilitate segregation on board and prevent cross-contamination of recyclables with ICW
- Developing SOPs to identify best waste segregation practices for every aircraft type and flight duration
- Developing SOPs to identify best ground handling practices for collection, separation, monitoring for record keeping and disposal processes

Airline operators should work together with caterers during menu development to assess the recycling rate of new products and equipment and assess other options to reduce waste, such as using 1.5 L bottles of water instead of individual bottles.

2.4 Definitions

For the purposes of this document, the term ‘recyclables’ refers to materials that can be recovered from a waste stream, reprocessed, and subsequently re-used. More specifically, within the aircraft cabin environment, recyclables include the following main material categories:

- aluminum cans
- glass bottles and containers
- polyethylene terephthalate (PET) bottles and cups
- beverage cartons/Tetra Pak
- paper and cardboard
- co-mingled recyclables (incorporating a mix of any of the above)

Under different international legislations, these materials cannot be considered recyclable if they have contained animal or dairy products, or plant based items (fruits, vegetables, flowers) in the US.

2.5 Legal Compliance and Regulatory Requirements

- **USA:** USDA APHIS Regulated garbage No 7 CFR 330.400
- **EU:** (Regulation (EU) 1069/2009) Category 1 (CAT1) International Catering Waste (ICW), Regulation (EU) 142/2011 Category 1 (CAT1)
- **United Kingdom:** The Animal By-Products Regulations 2013 No SI 2013/2952
- **Canada:** Health of Animals Regulations No SOR/91-525
- **Australia:** Biosecurity Act 2015, Act No. 61 of 2015
- **New Zealand:** Biosecurity Act 1993 No 95
- **Japan:** Plant Protection Act No. 151 of May 4, 1950, and Domestic Animal Infectious Diseases Control Act No. 166 of 1951
- **China:** Regulations on the Prevention and Control of Animal Diseases by the General Administration of Customs (GACC) and Ministry of Agriculture and Rural Affairs

- **Brazil:** Normative Instruction No. 24 of 2004
- **Middle East/ United Arab Emirates:** Federal Law No. 24 of 1999 for the Protection and Development of the Environment

3. Planning

3.1 Stakeholder engagement

Caterers should communicate with airline operators regarding the requirement of the whole process of waste management, both on and off the aircraft. Relevant information should be spread to all stakeholders to ensure the process is implemented successfully. Examples of engagement include regular meetings and joint demonstration runs at the initial stage of the operation phase.

To ensure stakeholder engagement, it is recommended to have a standard procedure that all airlines and caterers can follow.

STEPS	DESCRIPTION	EXAMPLE
Diagnostic	Taking stock of waste on return flights. Identify the impact that menu design has on the waste generated.	Counting of waste from returning flights by type and quantity (sampling).
Planning	Planning on waste generated. Considering regulation and local waste capabilities to ensure proper waste management. Communicate to relevant authorities the planned segregation process.	The country has the capabilities to recycle or handle the waste coming into the country.
Define waste segregation Prioritization	Based on the final destination of waste, prioritize which material will be segregated to be recycled or re-used.	Prioritize recycling materials like plastics, metals, and paper based on the destination country's recycling facilities.
Define standard process for segregation onboard	Internally train the crew on the proper segregation on different materials, according to the flight destination.	Prioritize waste segregation based on flight destination capabilities.

Periodical reports	Caterers should share waste data to show the progress.	Periodical reports from the caterers detailing the amount and types of waste collected and recycled, shared with the airline operator for review.
Regular audits and feedback	Conduct regular audits of waste management practices in place.	Quarterly audits of waste segregation practices and surveys from catering staff and crew to identify areas for improvement.
Continuous improvement programs	Implement continuous improvement programs to enhance waste management practices.	Regularly update waste management protocols based on audit findings and new regulations and provide ongoing training for staff.

3.2 Commercial Assessment

Waste disposal cost and revenue of recyclables are direct financial incentives for airline operators and airline caterers to reduce waste and maximize recyclables. The requirements to meet corporate waste recycling and carbon reduction targets may also act as a corporate social responsibility driver.

All stakeholders can work together to align waste disposal costs and the associated reduction targets with quantities of waste and recyclables produced. This alignment can be accomplished by making the costs of waste disposal a separate line item in contracts or by linking service costs to the quantities of waste and recyclables collected. An assessment of the potential costs and benefits of implementing a waste recycling program should be evaluated and should consider the following criteria:

3.2.1 Recyclable revenues

Conduct an analysis of likely volumes of recyclables (for each material category) and their associated market rates to determine the potential revenue that may be generated from the implementation of a waste recycling program.

3.2.2 Avoided disposal costs

Reduced waste volumes would bring down the waste disposal cost and associated costs in waste management contracts, such as equipment, transportation and administrative costs.

3.2.3 Additional operational costs

Caterers should consider all other costs associated with implementing or expanding waste recycling initiatives, including extra staff required, staff training, equipment required for recycling (such as extra bags/labels/containers, elevation systems or drainage systems for eliminating liquids) and extra transportation cost.

Airlines and caterers should conduct this assessment together to have a complete view on the total process and have an open discussion about the real costs and revenues of waste management.

4. Training and Engagement

All stakeholders should prepare their own training materials and programs to their staff, taking into account the need for an integrated approach among stakeholders. Training materials should be reviewed regularly and updated when necessary. Quick reference cards may be part of the training material. Training materials must be aligned with local regulations and capabilities.

To ensure that staff is engaged and motivated to participate in recycling programs, it is critical that staff representatives are involved in their design and implementation of the recycling program. Staff should be encouraged to provide feedback, as their experience is likely to provide valuable insights into how procedures can be improved.

5. Operation Practices

All stakeholders should agree to a common waste recycling program that reflects their operational requirements, handling capacity for recyclables, local recyclable markets and any national regulatory compliance requirements.

5.1 Airline caterers

- Airline caterers should ensure that the recyclables are not mixed with non-recyclable waste or ICW.
- The recyclables should be deposited in their own recyclable collection area or the airside waste facilities operated by the airport operators.
- Airline caterers should monitor the volume of recyclable materials collected according to the airline operators' requirements in order to achieve greater transparency on waste handling.
- Airline caterers should have a contract with airline operators to define which materials to recycle, the amount of these materials and the costs and benefits.
- Airline caterers should follow all applicable regulations of governmental authorities. These authorities will be notified in advance of any segregation initiative in ICW.
- Airline caterers should have all applicable facilities to handle recyclables such as trained staff on handling ICW, infrastructure and equipment (such as dedicated wastebins or containers).
- Airline caterers should conduct an assessment on the possibilities of segregating recyclables at the catering facility.

5.2 Airline operators⁶

Airline operators should define clearly for cabin crews when and how recyclables are collected during the flight journey. It is recommended that segregation of recyclables takes place in the absence of food to avoid cross contamination.

⁶ International Air Transport Association (IATA), "Guidance for Recycling from International Flights", May 2015.

Airline operators could implement a program to collect and reuse items that otherwise might be thrown away (like small items, headrest covers, headsets).

Recyclables may either be returned to their original stowage location or specific location (e.g. drinks waste) to be collected by airline caterers or placed in colored/labeled recycling bags to be collected by aircraft cleaning companies or airline caterers.

Airline operators and crew should be made aware of the fact that the process of waste management starts with and is dependent on proper segregation on board.

5.3 Waste management contractor and recycler

The waste management contractor and recycler should be aware of the importance of separation of recyclable and non-recyclable waste from aircraft. The volume and weight of recyclable materials recycled should be monitored and reported to the caterers. The waste management contractor and recycler should closely monitor and keep the caterer informed of the latest information from the local recycling market. Caterers should monitor the performance of the waste management contractor and recycler through regular meetings, site visits and audits.

6. Monitoring and Reporting

Quantitative data is an essential tool to assess the performance of the waste recycling program. Caterers and airline operators should work together to determine the best way to accurately acquire recycling data. Waste data and supporting documentation should be kept and checked periodically by caterers and airline operators.

Caterers, airline operators and waste management contractors should monitor and report the progress of improvement to all stakeholders on a regular basis. Relevant KPIs could be total waste generated, kg/passenger, % recyclables, etc.

Within a continuous improvement process, the results and KPIs will be the basis for improving the onboard segregation process.

The involvement of crew and catering employees to contribute ideas for improvement will also be a fundamental tool for improving the process.

It is highly recommended that the progress made in recycling is shared in full transparency amongst airlines and catering companies with the ultimate objective of improving the environmental impact of the ICW.