
Environmental Code of Practice for Packaging and Guidelines

Part A – Environmental Code of Practice for Packaging

1.0 Introduction

This Environmental Code of Practice for Packaging (the Code) promotes excellence in packaging as defined by two fundamental and equally important principles. Packaging should be designed to have the minimum net impact on the environment, specifically in term of waste, water, energy and emissions, while also fully preserving the integrity of the product it contains.

The Code recognises the valuable contribution that packaging makes to the economic and social well-being of Australians, for example by providing convenient, safe and cost-efficient delivery of product to consumers. It also helps to minimise waste in the supply chain by protecting products from damage and increasing the shelf-life of perishable products. Packaging also plays a role in assisting producers to give consumers information about their products.

The Code acknowledges that packaging also contributes to negative environmental impacts including consumption of resources, waste and generation of litter. In applying this Code, reference to minimising environmental impacts refers to minimising negative environmental impacts such as these whilst maximising environmental benefits.

Previous Codes have been in effect in Australia since the early 1990's and became integrated with the National Packaging Covenant (the Covenant) in 1999. Revisions to the Covenant in 2005 (Covenant Mark II) have led to this upgraded version of the Code.

Furthermore, the signatories to the Covenant have committed to the achievement of overarching targets relating to waste reduction and increased recycling, and recognise the importance of designing packaging that conforms with the Code. Within the voluntary framework established by the Covenant, it is essential that Covenant signatories fully consider the Covenant's overarching targets when selecting packaging or packaged goods. This includes identifying the implications of packaging choices on the overarching Covenant targets and taking appropriate actions to assist in achieving those targets.

The Code is a statement of general principles for the design of environmentally responsible packaging. The more detailed Environmental Guidelines for Packaging (Guidelines) have been produced to assist companies to implement the principles of the Code in their product development process. The Guidelines will also assist companies to demonstrate that they have implemented the Code.

2.0 Scope

The Code and Guidelines apply to the packaging of all products manufactured or consumed in Australia. The Code is an integral part of the Covenant; however the Code and Guidelines are also a tool intended to assist organisations that are non-signatories to the Covenant to minimise the environmental impacts of their packaging. The purpose of the Code and Guidelines is to demonstrate environmental stewardship in packaging design and selection. Its application will be via packaging designers and manufacturers, brand owners, retail buyers and product importers.

Existing and future relevant standards and legislation maintain their jurisdiction and status and should be adhered to in conjunction with the Code and Guidelines.

3.0 Objectives

The Code and Guidelines are intended to guide the packaging supply and recovery chains in minimising overall life cycle environmental impacts of packaging and packaged products, and achieving the overarching targets as set out in the Covenant. Accordingly, the objectives of the Code and Guidelines are to:

1. Protect and deliver goods efficiently with the minimum environmental impact.
2. Use resources (including materials and energy) more efficiently.
3. Reduce the amount of waste and litter generated by packaging through facilitating reuse or recycling.
4. Minimise negative impacts of packaging and packaged products on humans and the natural environment.
5. Ensure effective and clearly documented practices are in place to address environmental concerns in the product development and review process for packaging and packaged products.

More broadly, the Code and Guidelines should be seen as tools for the design and manufacture of innovative packaging that meets the sometimes conflicting demands of the market, consumer protection and the environment.

4.0 Definitions

[It was agreed in the 23 March 2005 Task Force meeting that the definitions would have to be agreed on once the final Covenant package (including the NEPM) was completed and that definitions would need to be consistent across both the Code and Covenant documents.]

“CEN” means the European Committee for Standardisation.

“Code” means the Environmental Code of Practice for Packaging.

“consumer packaging” means all packaging products made of any material, or combination of materials, for the containment, protection, marketing or handling of retail consumer products. This also includes distribution packaging.

“Covenant” means the National Packaging Covenant.

“degradable” means a characteristic of a product or packaging that, with respect to specific conditions, allows it to break down to a specific extent within a given time.

“distribution packaging” means packaging that contains multiples of products (the same or mixed) intended for consumer use, including:

Secondary: packaging used to secure or unitise multiples of consumer packaging, eg. cardboard box, shipper, shrinkfilm overwrap.

Tertiary: packaging used to secure or unitise multiples of secondary packaging, e.g. pallet wrapping stretchfilm, shrinkfilm, strapping.

“**downcycling**” means reprocessing of a material into a lower value product, for example packaging glass used for road base, or paper used as a filler in plastic lumber.

“**environmental claim**” means a statement, symbol or graphic that indicates an environmental aspect of a product, a component or packaging.

“**environmental impact**” means any change to the environment, whether adverse or beneficial, wholly or partially resulting from an organisation’s activities or products.

“**Guidelines**” means the Environmental Guidelines for Packaging associated with the Code.

“**industry**” means any manufacturing, industrial, commercial, wholesale or retail activity or process, that can result in the generation, recycling, treatment, transport, storage or disposal of consumer packaging.

“**key performance indicators**” means the agreed, quantifiable measurements that reflect the critical success factors of the National Packaging Covenant.

“**landfill**” means waste disposal sites used for the authorised deposit of solid waste onto or into land.

“**life cycle**” means consecutive and interlinked stages of a product system, from raw material acquisition or generation of natural resources to final disposal.

“**litter**” means consumer packaging that when removed from a product is intentionally or unintentionally discarded to the environment.

“**NPCC**” means the National Packaging Covenant Council

“**NPCIA**” means the National Packaging Covenant Industry Association.

“**PACIA**” means the Plastics and Chemical Industry Association.

“**packaging recovery chain**” refers to the companies and/or organisations who provide recycle collection services, reprocessors, secondary markets and users of recovered, post-consumer and post-industrial packaging materials and paper products.

“**packaging supply chain**” means each of the organisations that participate in the creation, distribution and sale of consumer packaging and / or products. These include but are not limited to:

- suppliers of raw materials for consumer packaging
- manufacturers of consumer packaging
- suppliers / distributors of consumer packaging
- manufacturers of consumer products
- fillers of consumer packaging, eg contract packers
- brand owners of consumer products
- wholesalers / distributors of consumer products
- retailers of consumer products

“**post-consumer recycled content**” means material generated by households or by commercial, industrial and institutional facilities in their role as end-users of the product which can no longer be used for its intended purpose. This includes returns of material from the distribution chain.

“**pre-consumer recycled content**” means material diverted from the waste stream during a manufacturing process. Excluded is reutilisation of materials such as rework, regrind or scrap generated in a process and capable of being reclaimed within the same process that generated it.

“**recovery**” means the system whereby materials are diverted from the waste stream for reuse or reprocessing for use as a raw material for the manufacture of a new product.

“**recyclable**” packaging means reasonably able to be recovered in Australia through collection or drop-off systems and able to be reprocessed and used as a raw material for the manufacture of a new product.

“**recycle**” means recover the consumer packaging and use it as a raw material to produce another product.

“**recycled content**” is the percentage by weight or volume of pre-consumer and/or post-consumer recycled material in the raw materials used for the manufacture of a product.

“**reuse**” means the use of consumer packaging (including distribution packaging) for the same or similar purpose as the original purpose without subjecting the packaging to a manufacturing process that would change its physical appearance.

“**signatory**” means a signatory to the National Packaging Covenant, and includes an organisation that accedes to the Covenant after it is made, whether before or after the commencement of the supporting regulation.

“**toxic substance**” means a substance which is poisonous or harmful to the health of living organisms.

“**waste**” means material not being recovered for reuse and entering the waste stream, including discharges to air and water as well as solid waste from manufacturing or treatment processes.

“**waste hierarchy**” is a concept that provides a framework of environmental decision making on desirable waste management options - prioritising first the reduction of material use, second the reuse of product, third the recycling of the material and lastly the optimisation of its final disposal.

5.0 Packaging Design and Selection

The vital role packaging plays in modern society is widely recognised for ensuring that products are protected and preserved, waste minimised, and quality, health and safety assured. Key roles of packaging include:

- Consumer safety and information
- Product shelf life, integrity and safety
- Logistical and supply chain considerations
- Theft prevention
- Marketing and sales

Packaging is subject to other codes, standards and legislation. Users of the Code and Guidelines should ensure that their packaging conforms with all government Acts and Regulations and relevant Australian Standards.

Users of the Code and Guidelines must fully consider the positive (beneficial) and negative (adverse) environmental impacts of packaging in their decision making process and document this decision making process. The User of the Code and Guidelines should consider the overarching targets for reductions in packaging to landfill and increased packaging recycling under the Covenant. While it is not a requirement of the Code and Guidelines that individual products support the achievement of these overarching targets, it is important that Users of the Code and Guidelines understand the threat of prescriptive regulation if these overarching targets are not met. The overall strategies to address environmental impacts of packaging and packaged products that must be considered across the packaging supply and recovery chains include:

- Source reduction;
- Potential for packaging reuse;
- Recovery and recycling;
- Ability to incorporate recycled content;
- Minimising impacts of packaging;
- Propensity to become litter; and
- Consumer information.

Where conflicting objectives exist, signatories should take steps to ensure that they have chosen the approach that best optimises the beneficial and minimises the adverse environmental impacts across the packaging supply and recovery chains without diminishing the package's ability to perform its primary function(s). The decision making process used in each of the strategies mentioned below, at a minimum, must be documented and demonstrated by Users of the Code and Guidelines.

5.1 Source Reduction

Packaging should be manufactured so that the packaging materials are optimised to ensure the minimum amount required to maintain the necessary level of safety, hygiene and acceptability of the packaged product to the User of the Code and Guidelines and/or consumer.

Consumption of other resources such as energy should also be minimised across the packaging supply and recovery chains, for example packaging decision making should consider how the product and packaging are to be distributed and whether distribution requires special conditions such as refrigeration. The design of the product/packaging system should optimise transport efficiency (and therefore fuel consumption), for example by maximising the amount of product transported in a truck or container.

Refer to Section 10 of the Guidelines.

5.2 Potential for Reuse

Packaging should be designed and produced in such a way as to maximise its potential for reuse where the environmental benefit can be demonstrated. Priority should be given to reuse for the same application (for example pool pallet system for distribution) followed by reuse for an alternative application (for example glass jars used as drinking vessels).

Refer to Section 11 of the Guidelines.

5.3 Recovery and Recycling

Packaging should be designed and produced in such a way as to maximise its potential for recovery and recycling at end-of-life and to minimise the environmental impacts of its disposal.

The packaging design should support recovery in accordance with the waste hierarchy, with preference given to recycling for the same or similar application ('closed loop') followed by recycling for an alternative application ('downcycling' or composting).

Where possible, the package should consist of a single material, or materials, which can be readily separated and sorted for recovery. Packaging should be designed to minimise the impacts that any components such as closures, labels, sleeves, carry handles, etc may have on the recovery process. This requires consultation with companies involved in collection, sorting and reprocessing of the packaging.

Packaging (including imported packaging and packaged goods) must not be introduced into the market without full consideration of the impacts on resource recovery and recycling, for example degradable plastics packaging. However users of the Code and Guidelines should recognise that innovation leading to improvements in long term environmental outcomes should also be encouraged and considered where appropriate (even if there are short term or transitional difficulties).

Refer to Section 12 of the Guidelines and to the Recycling Materials Manual available from the Australian Council of Recyclers.

5.4 Ability to Incorporate Recycled Content

Packaging should maximise the use of recycled content where use of such content is physically possible, not detrimental to the function of the packaging or the packaged product, and would not violate applicable health and safety standards.

Priority should be given to incorporating post-consumer recycled material to support markets for material collected from recovery systems. Where appropriate, post-industrial recycled material should also be incorporated and considered.

In accordance with AS/NZS ISO14021, where a claim of recycled content is made, the percentage of pre-consumer or post-consumer recycled material shall be stated.

Refer to Section 13 of the Guidelines.

5.5 Minimising Impacts of Packaging

Users of the Code and Guidelines should consider their common law liabilities in relation to the use of hazardous or toxic materials, assess the packaging for the presence of toxic substances that are likely to pose risk and endeavour to reduce that risk accordingly.

Refer to Section 14 of the Guidelines.

5.6 Propensity to Become Litter

Users of the Code and Guidelines must be aware of whether or not their packaging is typically found in litter streams. If their packaging is typically found in the litter stream then companies should take specific measures to reduce the impact of such litter through, for example:

- Design to minimise the number of separable components; and
- Accurate consumer information to encourage appropriate management.

Refer to Section 15 of the Guidelines.

5.7 Consumer Information

If environmental claims are being made about such things as recycled content of packaging, recyclability or degradability, then this should be made clear to consumers of the packaging or packaged product where possible through the use of environmental labelling. Users of the Code and Guidelines seeking to adopt environmental labelling on packaging must refer to AS/NZS ISO 14021:2000. This states that environmental labels and declarations should aim to encourage demand for and supply of products that cause less stress on the environment, through communication of verifiable, accurate information on environmental aspects of products that is not misleading.

Failure to properly adhere to labelling guidelines may raise issues of Trade Practice law.

- The mobius loop should be used to make environmental claims when supported properly in accordance with AS/NZS 14021:2000.
- In contrast the Plastics Identification Code is a voluntary system of marking plastic containers to identify the plastic resin from which they are made and it should be used where appropriate and possible. It is not intended to be a guarantee of recycling ability or to provide companies with a platform for environmental claims.

Refer to Section 16 of the Guidelines.

6.0 Implementation

Implementation of the Code and Guidelines has a formal meaning. A User of the Code and Guidelines is said to have implemented them if the following is true:

- The User has considered the seven strategies for reducing the environmental impact of packaging and packaged products while developing or selecting any new packaging or reviewing existing packaging;
- The User has documented that each of the seven strategies was considered (either in accepting or rejecting) in respect of an item of packaging; and
- The User has sought to utilise its influence on supply chain linkages to improve the uptake of the Code and Guidelines.

In accordance with the Guidelines, documentation in accordance with European Committee for Standardisation (CEN) Umbrella Standard EN 13427:2004 *Packaging – Requirements for the use of European Standards in the field of packaging and packaging waste* and its associated European Standards may be used in lieu of detailed documentation for applicable strategies. Strategies for litter and consumer information are not covered under the European Standards documentation provisions.

6.1 Users of the Code and Guidelines that are Covenant signatories

Although the Code (and Guidelines) serves as a stand-alone document to assist industry in using packaging in an environmentally sound manner, it is also a specific component of the Covenant (Schedule 4). For the benefit of Users of the Code and Guidelines that are signatories to the Covenant, this section describes that interaction.

The Covenant is designed to minimise the environmental impacts along the packaging supply chain arising from the use of packaging including: its specification and design; conservation of resources during its manufacture and filling; and facilitation of the reuse and recycling of used packaging materials.

The Covenant establishes a framework for the effective life cycle management of consumer packaging and paper to be delivered through a collaborative approach between all sectors of the packaging supply chain, consumers, collectors, reprocessors and Government. The Guidelines function as an operational tool to help industry achieve Covenant objectives.

The revised Covenant Mark II includes specific Key Performance Indicators (KPIs) for Covenant signatories. A number of these KPIs are directly linked to the Code and Guidelines, as shown in Table 1.

Table 1: Covenant KPIs Linked to Implementation of the Code and Guidelines

	Key Performance Indicator [re-examine if KPIs are modified under Covenant discussions]
1.1	Total weight of packaging (including distribution packaging) used p.a. (domestic & imported) and the total weight of products packaged
1.2	Resources used to produce the package: energy used, water used and production efficiency
1.3	Changes to protection, safety, hygiene and shelf-life considerations associated with the packaging
1.4	Changes in marketing and distribution of the product to minimise packaging
2.1	Proportion of recycled content used p.a. in packaging, by material type (including plastic bags)
3.1	Reduction in new and existing product packaging unable to be recovered and re-utilised using existing recovery schemes
4.1	Total weight of packaging material re-utilised by type and end market
4.4	Products purchased with recycled content (number of units purchased as a percentage of total units for the 3 highest quantity purchases)
6.1	Number of signatories who have formally adopted the Environmental Code of Practice for Packaging (Code) and developed systems for implementation
8.4	Weight of packaging to landfill and recycling from in-house operations
9.3	Improvements in knowledge about the functional attributes of packaging, including recyclability/ reuse
9.4	Increase in consumer information to enable more informed behaviour

Adoption and implementation of the Code and Guidelines, as well as progress against KPIs, is to be addressed and documented through the Covenant's Action Planning process embodied in Schedule 3 of the Covenant.

All Covenant signatories are required to submit an Action Plan detailing how they plan to demonstrate and report on their Covenant actions and commitments including the incorporation of the principles identified in the Code and the processes set out in the Guidelines. Action Plans will be assessed for validity and content in accordance with Schedule 3 of the Covenant.

The Guidelines provide practical measures for ensuring that Action Plans reflect formal Code adoption and implementation. In addition they also provide a method through which its implementation can demonstrate a signatory's level of commitment to achieving environmental improvement.

Users of the Code and Guidelines must be able to demonstrate and document how their total packaging decision making will contribute to the overarching waste reduction and recovery targets set out in the Covenant. Key overarching targets, as identified in the Covenant, which all signatories must address are:

- a reduction in total amounts of packaging disposed of to landfill;
- an increase in the amount of packaging recycled;
- increased use of recycled packaging materials in new products;
- reductions in the use of non-recyclable packaging; and
- improved company performance against baseline data.

6.2 General Code Management/Governance

Whilst the Code and Guidelines are strongly linked with the Covenant, they remain an industry code of practice and ownership therefore remains with industry. The operation and review of the Code and Guidelines is administered by a Management Committee consisting of representatives of:

- Australian Council of Recyclers
- Australian Food and Grocery Council
- Australian Industry Group
- Australian Retailers Association
- Beverage Industry Environment Council
- Packaging Council of Australia
- Plastics and Chemicals Industries Association.

The Management Committee's terms of reference are:

- to regularly review the Code and Guidelines in the light of changing technological, social, economic and environmental considerations at least every three years;
- to ensure timely and accessible updating of relevant references and guidelines;
- provide guidance on, and make recommendations for, the resolution of any matters that come before it;
- promote the Code and Guidelines to industry, educators and the community;
- to ensure conformance with the Code and Guidelines by industry Users that are not Covenant signatories (compliance with the Code is mandatory for signatories); and
- establish any subcommittees, other advisory bodies or administrative structures necessary to ensure and promote the effectiveness of the Code and Guidelines.

The Management Committee will establish a "Complaints Log" to record and track all complaints received and be responsible for the day-to-day management of the "complaints system". Complaints will first be considered and addressed by the Management Committee on a case by case basis to determine validity and the relevance of the complaint to the Code. Similar complaints against particular classes of packaging may be aggregated as appropriate.

Upon receipt of a valid complaint, the Management Committee will call for input from both the complainant and the company alleged to have failed to comply with the Code and Guidelines. Responses to the calls for information should be met by both the complainant and the alleged offending company in writing within thirty (30) days from the receipt of the request.

Where said complaint is determined by the Management Committee to have objective and sound claims and refers to the packaging or packaged product of a Covenant signatory, the Management Committee will ensure that said complaint is forwarded to the National Packaging Covenant Council (NPCC) to undertake their own investigations to determine whether the complaint is contrary to either the Covenant or the signatories' Action Plans. Determinations of conformance or non-conformance with the Code and Guidelines will be reported to the NPCC within seven (7) days of such determination being made by the Management Committee. It is NOT expected that the Management Committee will play any role in determining the level of corrective action required or penalties necessary.

Should a complaint concern a company represented on the Management Committee then that representative shall, for that investigation, disqualify himself or herself and the Chair of the Management Committee may appoint a substitute to act as a representative on the Management Committee.

At the request of the Management Committee the User subject to a complaint shall produce all supporting materials and evidence justifying the company's claim to meeting the Code and Guidelines.

The Management Committee shall have the authority to co-opt the services of appropriate experts as required. Such co-opted experts shall have no voting rights. The costs incurred in the co-opting of appropriate experts shall be covered by the parties to the complaint on a basis predetermined by the Management Committee and agreed in writing by the parties prior to the co-opting of such services. The Management Committee will report outcomes of its investigations and results in a transparent manner regardless of whether the complaint refers to a signatory and non signatory.

7.0 Communication

The communication of this Code and Guidelines and their requirements are to be communicated to all Users of the Code and Guidelines through a range of channels. The National Packaging Covenant Industry Association (NPCIA) and its representative bodies will be responsible for ensuring that all signatories are aware of the Code and Guidelines. Respective industry organisations are to ensure sector companies have access to the Code and Guidelines and their implementation. Jurisdictions at the state and federal level will also be responsible for the communication of the Code and Guidelines to non-signatories of the Covenant.

8.0 Notes

Development of the Code and Guidelines has drawn from a range of sources with the aim of achieving good practice including the relevant CEN standards, New Zealand Code¹, UK Code² and stakeholder consultations. Where appropriate, relevant Code and Guidelines definitions have been adopted in their entirety from the Covenant to help ensure consistency. The contributions of all these sources are greatly appreciated.

“Packaging supply and recovery chain” is intended to encompass the separate definitions of “packaging supply chain” and “packaging recovery chain”.

¹ Packaging Council of New Zealand *Code of Practice for the Packaging of Consumer Goods*.

² Incpen *Code of Practice for Optimising Packaging and Minimising Waste*.

PART B - Environmental Guidelines for Packaging

Users of the Code and Guidelines must implement the principles of the Code in their product development and review process and demonstrate that they have implemented the Code and Guidelines in accordance with Section 6.

The following sections provide guidance to Users of the Code and Guidelines in documenting consideration of the following strategies across the packaging supply and recovery chains:

- Source reduction;
- Potential for packaging reuse;
- Recovery and recycling;
- Ability to incorporate recycled content;
- Minimising impacts of packaging;
- Propensity to become litter; and
- Consumer information.

For many of these strategies, documentation in accordance with CEN Umbrella Standard EN 13427:2004 *Packaging – Requirements for the use of European Standards in the field of packaging and packaging waste* (and the latest versions of its associated European Standards) may be used and provided as necessary, in lieu of detailed requirements listed in these Guidelines. Strategies for littering and consumer information are not covered under the European Standards documentation provisions. While Users of the Code and Guidelines have flexibility in documenting that the provisions of each section have been addressed, sample data formats have been provided and a sample summary table is provided in Section 17.

It is recommended that the procedures and record keeping outlined in the Code and Guidelines be incorporated into ISO 9000 and/or ISO 14000 systems, where applicable, and that at a minimum, supporting documentation be maintained for five years. Supporting documentation must be made available for examination by the Management Committee as required in accordance with Section 6.2 of the Code.

For further guidance, contact the NPCIA. A list of additional sources of information that may prove useful is provided in Section 20.

9.0 Additional Definitions for Guidelines

Terms in the Guidelines have the same meaning as provided in Section 4 of the Code. The following definitions apply to additional use of terms in the Guidelines.

“**critical area for source reduction**” means specific performance criterion which prevents further reduction of weight and/or volume of the packaging without endangering functional performance, safety and user/consumer acceptability.

“**Material Safety Data Sheet (MSDS)**” means a document that describes the properties and uses of a substance and provides health hazard information and information on precautions for use and safe handling.

“NICNAS” means the National Industrial Chemicals Notification and Assessment Scheme.

“POPs” means persistent organic pollutants.

“ppm” means parts per million.

“prevention by source reduction” means a process for the achievement of a minimum adequate weight and/or volume, for identical requirements, of primary and/or secondary and/or tertiary packaging, when performance and user acceptability remain unchanged and/or adequate, thereby minimising the impact on the environment.

10.0 Source Reduction

Intended Outcomes from Code Implementation (refer Section 5.1)

- Packaging should be manufactured so that the packaging volume and weight is limited to the minimum amount required to maintain the necessary level of safety, hygiene and acceptability of the packaged product to the User/consumer.
- Environmental impacts of energy consumption should be minimized across the supply chain.
- The design of the product/packaging system should optimize transport efficiency (and therefore fuel consumption).

Guidance

- Source reduction activities should be conducted in accordance with designated definitions of “prevention by source reduction” and “critical area for source reduction” in Section 9.
- Layers of packaging in the system should be minimized through the most optimal combination of primary, secondary and/or tertiary packaging, for example it may be possible to eliminate one layer through better design of the product or packaging.
- Product waste should be minimized by allowing complete dispensing of the product, i.e. minimal residue left behind in the package when disposed of by the consumer.
- Source reduction of packaging can be achieved in many different ways, for example by lightweighting the package, increasing the bulk or volume of product in the retail unit, by concentrating the product, or by redesigning the package to eliminate some of the material.
- Documentation in accordance with CEN Prevention Standard EN 13428:2004, Packaging – Requirements specific to manufacturing and composition – Prevention by source reduction may be used in lieu of a detailed demonstration under this Section.

Table 2: Sample Documentation for Consideration of Source Reduction

Demonstrated Consideration of Source Reduction (S.5.1 of Code)		
Company: [XYZ Beverages]	Assessment Reference: [ABC123]	Date: [1 July, 2005]
Contact: [Worker name]	Title: [Packaging Designer/Signatory]	Contact Details: [TBC]
Consideration	Reference(s)	Note(s)
Is there currently a standard configuration / material for packaging of this type and purpose? If so, is this the default configuration / material for your packaging item?		
Are there source reduction options which might be applicable in the case of this packaging item? List		
What would be the likely functionality of these options throughout the packaging supply chain?		
How have the implications for safety and hygiene for both product and user/consumer of the source reduction options been considered?		
Acceptability of the source reduction options for packed product to the user/consumer		
For the default and alternative packaging options, what quantity of material will be used per unit of delivered product?		
Distribution efficiency of packaging measured by quantity of product contained on a pallet, truck or container compared to alternative packaging approaches		
Ability of the consumer to dispense close to 100% of the product?		
Comparison between environmental impacts of status quo and source reduction options		
Documentation must be maintained until 2010		

11.0 Potential for Reuse

Intended Outcomes from Code Implementation (refer Section 5.2)

- Where Users of the Code and Guidelines claim reuse, they must be able to demonstrate the practicality of the reuse system as well as any environmental benefits claimed.
- Priority should be given to reuse for the same application (for example closed-loop distribution packaging), followed by reuse for an alternative application (for example glass jars used as drinking vessels).
- Reusable packaging should be designed to minimize life cycle environmental impacts, for example in transport, by maximizing return rates.

Guidance

- Documentation in accordance with CEN Reuse Standard EN 13429:2004, Packaging – Reuse may be used in lieu of a detailed demonstration under this Section.
- Reusable distribution packaging should be designed for durability, efficient return (for example by collapsing or nesting to take up less space), effective cleaning, and tracking in the supply chain (for example through use of radio frequency identification (RFID) if justified by the value of the packaging).

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- Clear and effective communication with supply chain partners should be undertaken to maximise participation and return rates and ensure the implementation of reusable distribution packaging where such packaging is utilised.

Table 3: Sample Documentation for Consideration of Reuse

Demonstrated Consideration of Reuse (S.5.2 of Code)		
Company: [XYZ Beverages]	Assessment Reference: [ABC123]	Date: [1 July, 2005]
Contact: [Worker name]	Title: [Packaging Designer/Signatory]	Contact Details: [TBC]
Consideration	Reference(s)	Note(s)
Designation of the reuse system as a closed loop system, open loop system or a hybrid system [define where appropriate EN 13429:2004]		
Packaging supply chain confirmation that the packaging is capable of reuse for the intended application under normal conditions without risk to the product or to the health and safety of packaging supply chain participants and consumers.		
Average number of return trips expected under normal use in the designated system.		
Document reconditioning and end of life management once the packaging has fulfilled its designated purpose.		
Environmental impacts and comparison against comparable one-way packaging.		
Documentation must be maintained until 2010		

12.0 Recovery and Recycling

Intended Outcomes from Code Implementation (refer Section 5.3)

- Packaging should be designed and produced in such a way as to maximise its potential for recovery and recycling at end-of-life and to minimise the environmental impacts of its disposal.
- The packaging design should support recovery in accordance with the waste hierarchy, with preference given to recycling for the same or similar application ('closed loop') followed by recycling for an alternative application ('downcycling' or composting).
- Packaging must not be introduced into the market without full consideration of the impacts on resource recovery and recycling.
- To help ensure the above outcomes, Users of the Code and Guidelines should utilise the Recycling Materials Manual, comprising the Kerbside Specifications for Post Consumer Materials and Recycling Guides for Manufacturers Marketing in Consumer Packaging. The Recycling Materials Manual is available from the Australian Council of Recyclers.

Guidance

- Where possible, the package should consist of a single material, or materials, which can be readily separated and sorted for recovery.

- Packaging should be designed to minimise the impacts that any components such as closures, labels, sleeves, carry handles, etc may have on the recovery process. Users of the Code and Guidelines must consult with recyclers or composters (depending on the intended recovery process) to find out whether any components will be problematic in the recovery process or in the end-product.
- Packaging should only be designed to degrade when littered in the natural environment (for example, inclusion of a degradability additive in plastic packaging) if there are clear environmental benefits and minimal environmental risks, taking into account the packaging recovery chain.
- Documentation in accordance with CEN Standard EN 13429:2004, Packaging – Reuse; CEN Standard EN 13430:2003: Packaging - Requirements for packaging recoverable by material recycling; and/or CEN Standard EN 13432:2000, Packaging – Requirements for packaging recoverable through composting and biodegradation – Test scheme and evaluation criteria for the final acceptance of packaging may be used in lieu of a detailed demonstration under this Section.

Table 4: Sample Documentation for Consideration of Recovery and Recycling

Demonstrated Consideration of Recovery and Recycling (S.5.3 of Code)		
Company: [XYZ Beverages]	Assessment Reference: [ABC123]	Date: [1 July, 2005]
Contact: [Worker name]	Title: [Packaging Designer/Signatory]	Contact Details: [TBC]
Consideration	Reference(s)	Note(s)
1. Is packaging of this type and purpose covered in the Recycling Materials Manual? (ACOR)		
2. If no to consideration 1, what other evidence suggests that the packaging item will be compatible with existing Australian recycling systems?		
3. If yes to consideration 1, does the packaging item conform to the requirements identified in the Manual?		
4. If no to consideration 3, what are the aspects of the packaging item's design, configuration or material selection which may cause problems for existing Australian recycling systems?		
5. What are the reasons for maintaining those aspects identified under the above consideration? In other words, why does the packaging need to be designed, configured or constructed in this way?		
6. Amount of non-recyclable material which will go to landfill		
7. Availability of a collection system (e.g. kerbside) which is widely available to consumers		
8. Availability of a market for the material through an existing recovery system (recycling or composting)		
9. Number and types of different materials used in the packaging		
10. Ability of different materials to be separated during the recovery process (e.g. caps, labels etc)		
11. Potential contamination issues in the recovery process in accordance with the ACOR Guide		

12. Consultation with collectors and reprocessors during the early stages of the product development process		
13. Development and implementation of appropriate labelling on packaging to encourage consumers to recycle or compost		
Documentation must be maintained until 2010		

13.0 Ability to Incorporate Recycled Content

- Intended Outcomes from Code Implementation (refer Section 5.4)
- Packaging should maximise the use of recycled content where use of such content is physically possible, not detrimental to function of the packaging or packaged product, and would not violate applicable health and safety standards.
- When choosing between material supply options, priority should be given to incorporating Australian post-consumer recycled material to support markets for material collected from recovery systems.
- If a claim of the use of recycled content is made, users of the Code and Guidelines must be able to demonstrate the minimum level of recycled content in accordance with AS/NZS 14021.

Guidance

- Recycled content should be assessed to ensure it is not detrimental to the function of the packaging or packaged product or could clearly otherwise result in a net increase in environmental impact across the packaging supply and recovery chains.

Table 5: Sample Documentation for Consideration of Ability to Incorporate Recycled Content

Demonstrated Consideration of Ability to Incorporate Recycled Content (S.5.4 of Code)		
Company: [XYZ Beverages]	Assessment Reference: [ABC123]	Date: [1 July, 2005]
Contact: [Worker name]	Title: [Packaging Designer/Signatory]	Contact Details: [TBC]
Consideration	Reference(s)	Note(s)
Amount and percentage of recycled material in the retail packaging unit (specify source, i.e. pre- or post-consumer)		
Amount and percentage of recycled material in secondary packaging (specify source, i.e. pre- or post-consumer)		
Amount and percentage of recycled material in the tertiary packaging unit (specify source, i.e. pre- or post-consumer)		
Compliance with food contact or other relevant performance standards		
Are there alternative configurations or materials which could incorporate recycled material? If so, how much and why were they not selected?		
Is there a material supply option which can provide the necessary material using post-consumer recycle?		
Evidence of the use of recycled material?		
Documentation must be maintained until 2010		

14.0 Minimising Impacts of Packaging

Intended Outcomes from Code Implementation (refer Section 5.5)

- Users of the Code and Guidelines should consider their common law liabilities, assess the packaging for the presence of toxic substances that are likely to pose risk, and endeavour to reduce that risk accordingly.

Guidance

- Companies should apply conventional and conservative risk management principles in the selection of substances for packaging applications. This includes, where possible, elimination of toxic and hazardous substances or minimisation of such substances where their use is necessary.
- The use of toxic and hazardous substances is currently covered by a range of local and international standards and regulations.
- There are currently no specific Australian standards for restricting or banning toxic or hazardous substances in packaging. However several international regimes are emerging. See end of document for further information on relevant development.
- Users of the Code and Guidelines should aim to meet international standards in relation to toxic and harmful substances where appropriate. For example, the EU Packaging Directive specifies that the combined weight of heavy metals (mercury, lead, cadmium and hexavalent chromium) in a package must be less than 100ppm.
- While persistent organic pollutants (POPs) in plastics may be a concern if incineration is used for energy recovery, incineration of consumer packaging is not used in Australia. Should this practice begin to emerge, users of the Code and Guidelines should determine and document the likely risk from POPs when incinerated.

Table 6: Sample Documentation for Consideration of Minimising Impacts of Packaging

Demonstrated Consideration of Minimising Impacts of Packaging (S.5.5 of Code)		
Company: [XYZ Beverages]	Assessment Reference: [ABC123]	Date: [1 July, 2005]
Contact: [Worker name]	Title: [Packaging Designer/Signatory]	Contact Details: [TBC]
Consideration	Reference(s)	Note(s)
Documentation must be maintained until 2010		

15.0 Propensity to Become Litter

Intended Outcomes from Code Implementation (refer Section 5.6)

- Users of the Code and Guidelines must be aware of whether or not their packaging is found in litter streams.
- If their packaging is typically found in the litter stream then companies should take specific measures to reduce the impact of such litter through:
 - Design to minimise the number of separable components; and
 - Accurate consumer information to encourage appropriate management

Guidance

- Users of the Code and Guidelines can understand their packaging's propensity to become litter by understanding/documenting where, when and how the product will be used and by whom. For example, away from home consumption or prevalence at take-away shops will increase the chance that the package, or components of the package, could be littered.
- Engagement in various litter groups established under existing industry organisations (such as the Australian Food Grocery Council).
- Reference to relevant litter reports can also help to understand the prevalence and significance of litter.

Table 7: Sample Documentation for Consideration of Propensity to Become Litter

Demonstrated Consideration of Propensity to Become Litter (S.5.6 of Code)		
Company: [XYZ Beverages]	Assessment Reference: [ABC123]	Date: [1 July, 2005]
Contact: [Worker name]	Title: [Packaging Designer/Signatory]	Contact Details: [TBC]
Consideration	Reference(s)	Note(s)
How many separate or easily separable components does the packaging item have? (e.g., screw cap lids, peel off seals)		
Has the packaging item been designed to minimise the number of separate or separable components? If no, why?		
Process through which the packaging has been reduced to only what is essential to the safe distribution, storage, sale or consumption of the product		
Have options for away from home recycling as part of an overall littering abatement program been considered?		
Does your company provide support (financial or in kind) for public place recycling programs?		
How is this packaging configuration or material represented in the litter stream? On this basis, is this packaging type problematic for the litter stream?		
If this packaging type is problematic for the litter stream, does your company provide support for, sponsorship of, or involvement in anti-littering projects and organizations?		
If this packaging type is problematic for the litter stream, have packaging suppliers to your company been informed of a preference for packaging with a lower propensity to become litter and/or reduced environmental impact if littered?		
How does your company promote greater internal awareness and understanding among product development and marketing professionals of the potential benefits of packaging design		

choices in terms of litter, such as reducing the number of components?		
How does your company develop and document internal procedures and protocols for assessing the litter potential of packaging and products as part of the product design and development process?		
Can the product label be improved to encourage consumers to manage the packaging in a responsible manner resulting in an increased awareness of litter issues among company stakeholders?		
Documentation must be maintained until 2010		

16.0 Consumer Information

Intended Outcomes from Code Implementation (refer Section 5.7)

- Users of the Code and Guidelines seeking to adopt environmental labelling on packaging must refer to Australian/New Zealand Standard, Environmental labels and declarations - Self-declared environmental claims (AS/NZS ISO 14021:2000).

Guidance

- AS/NZS ISO 14021:2000 states that environmental labels and declarations should aim to encourage demand for and supply of products that cause less stress on the environment, through communication of verifiable, accurate information on environmental aspects of products that is not misleading.
- Where appropriate, logos should be used on packaging to encourage recycling, for example the relevant industry logo (for example those used for steel, liquidpaperboard and beverage containers) or the mobius loop (refer to AS/NZS 14021).
- Materials used in plastic packaging should be identified with the Plastics Identification Code. The Plastics Identification Code is a voluntary system of marking plastic containers to identify the plastic resin from which they are made. The code allows for identification of a container after it has been used so that it can be recycled within that polymer stream. The code is not intended to be a guarantee of recycling or to provide companies with a platform for environmental claims. Copies of the Code and Guidelines on its use are available from PACIA.
- Anti litter information should be included on all packaging of products likely to be consumed away from home.

Table 8: Sample Documentation for Consideration of Consumer Information

Demonstrated Consideration of Consumer Information (S.5.7 of Code)		
Company: [XYZ Beverages]	Assessment Reference: [ABC123]	Date: [1 July, 2005]
Contact: [Worker name]	Title: [Packaging Designer/Signatory]	Contact Details: [TBC]
Consideration	Reference(s)	Note(s)
Will the packaging item have any environmental claims made about it?		
Do any such claims comply with the requirements of AS/NZS ISO 14021?		
What environmental issues have been considered during development of the marketing strategy for the product, including use of environmental claims, logos and consumer education?		
If recycling logos are to be used on the packaging, have you identified that there are existing recycling systems in place which will be able to recycle the packaging?		
Has anti-litter information been included on packaging which is likely to be consumed away from home?		
Is the Plastics Identification Code used and clearly visible on all plastic packaging?		
Documentation must be maintained until 2010		

17.0 SAMPLE SUMMARY ENVIRONMENTAL PACKAGING ADVISORY

Company: [XYZ Beverages]	Assessment Reference: [ABC123]	Date: [1 July, 2005]
Contact: [Worker name]	Title: [Packaging Designer/Signatory]	Contact Details: [TBC]

Summary Considerations

<p>New or Changed Package: New multi-material barrier package pouch (plastic and aluminium) which extends the current shelf-life by 10% using materials that don't have an immediate recovery route in place.</p>
<p>Environmental Benefits: (refer Appendix A1 for sources of environmental information, including supplier declarations and supporting internal documentation).</p> <ul style="list-style-type: none"> • Extends shelf life by 10% • Decreases food waste for this product by 25% (t/yr) • Decreases greenhouse gas generation by 5% (t CO_{2-e}/yr) • Decreases waste of existing packaging type by 15% (t/yr) • Decreases water wastage by 8% • Improves safety and reliability of food supply for remote locations, armed services and countries in famine
<p>Environmental Concerns:</p> <ul style="list-style-type: none"> • Consultation with packaging recovery chain (refer Appendix A2) shows no current recovery system in place • Adds x tonnes of material per year to landfill (refer calculations in Appendix A3) • Potential to interfere with recycling sorting operations.
<p>Control Improvements to Minimise Environmental Impacts:</p> <ul style="list-style-type: none"> • NPC Action Plan details work to improve recovery of materials via waste to energy options rather than landfill • Review of package progress and recovery options (in consultation with packaging recovery chain) in 12 months

Demonstrated Implementation of Environmental Code of Practice for Packaging

Consideration	Code	Guidelines	Reference(s)	Note(s)
Source reduction	5.1	10.0	EN 13428 report (Appendix A4); File note regarding conversation with supplier X dated 1 April 2005.	Reduced environmental impacts across life cycle based on conversation with supplier about packaging alternatives – detail of how supplier's response impacted on the strategy.
Potential for reuse	5.2	11.0	EN 13429 report (Appendix A5)	No reuse system in place
Recovery and recycling	5.3	12.0	Appendix A2 for supply chain consultations; EN 13429 report for degradability (Appendix A5)	Recycling systems currently in place
Ability to incorporate recycled content	5.4	13.0	Appendix A6	Limited due to food contact. Product list provided by supplier, annotated with remarks about suitability for packaging product in question.
Minimising toxic impacts of packaging	5.5	14.0	Supplier Declarations in Appendix A1; EN 13427	Supplier declarations show below detection limits; Confirmed with random testing
Propensity to become	5.6	15.0	Appendix A6	Not likely despite lack of recovery

litter				system
Consumer information	5.7	16.0	AS/NZS ISO 14021	No environmental claims to be made
Impacts on the packaging supply and recovery chains	All		Appendix A2	No recovery-systems currently in place; consultations continuing

Documentation must be maintained until 2010.

18.0 Applicable Standards

While this list is not comprehensive, some of the applicable standards that Users of the Code and Guidelines will need to consider include:

Standard	Title
AS/NZS ISO 14021:2000	Environmental labels and declarations - Self-declared environmental claims

19.0 Frequently Asked Questions/Do's and Don'ts

Frequently Asked Questions

Is implementation of the Code and Guidelines compulsory?

Implementation of the Code (and Guidelines) is mandatory for Covenant signatories. However the Code and Guidelines are also intended to assist organisations that are non-signatories to the Covenant to minimise the environmental impacts of packaging and to demonstrate environmental stewardship in packaging design and selection.

Where environmental considerations conflict with each other or with other design considerations, which take precedence?

Where conflicting objectives exist, take steps to ensure that the approach has been chosen which best minimises the environmental impacts across the packaging supply and recovery chains whilst conforming with all government Acts and Regulations and relevant Australian Standards and whilst ensuring that products are protected and preserved.

Why is documentation necessary?

Documentation is necessary to help demonstrate Action Plan compliance and to provide a defence if challenged on packaging decision making or on any environmental claims made.

How long must records be maintained?

Whilst there is no minimum requirement for records to be maintained, it is recommended that records be maintained for five years, consistent with the life of the Covenant.

Do:

- Ensure compliance with all relevant standards
- Consult with the packaging supply and recovery chains when making packaging decisions
- Document or reference consultations and support materials

- Maintain records of packaging decision making
- Seek assistance, if needed, from the list of contacts in Table 9

Don't:

- Jeopardise consumer or product safety for the sake of environmental considerations
- Override one environmental consideration for another if doing so would result in a net increase in overall environmental lifecycle impacts

20.0 Additional Information

Process for Updating/Refining Available Information

[NPC Website and contact details - site is still under construction]

Table 9: Key Contacts and Sources of Additional Information

Organisation	Website	Phone
AIGroup	http://www.aigroup.asn.au	02 6233 0700
Australian Council of Recyclers	http://www.acor.org.au	02 9907 0883
Australian Food and Grocery Council	http://www.afgc.org.au	02 6273 1466
Australian Retailers Association	http://www.ara.com.au	03 9321 5100
Beverage Industry Environment Council	http://www.biec.com.au	02 9518 6566
NICNAS	http://www.nicnas.gov.au	02 8577 8800
National Packaging Covenant	http://www.packagingcovenant.org.au	03 9681 6496
National Packaging Covenant (on DEH site)	http://www.deh.gov.au/industry/waste/covenant	02 6274 1111
NPCIA		02 9476 4822
NZ Code of Practice	http://downloads.packaging.org.nz/cop.pdf	+64 09 271 4044
Packaging Council of Australia	http://www.packcoun.com.au	03 9690 1955
Plastics and Chemicals Industries Association	http://www.pacia.org.au	03 9426 3810
UK Code of Practice	http://www.incpen.org	+44 (0) 118 925 5991

Further information on the use, management and harmonisation of Classification and Labelling of Chemicals

Strategies are being developed for a globally harmonised scheme for chemical classification and labelling. A global system will make classification and labelling decisions more transparent.

For more information please refer to:

<http://www.nohsc.gov.au/OHSLegalObligations/HazSubstancesAndDngGoods/ghs.asp>

The Rotterdam Convention on the prior informed consent procedure for certain hazardous chemicals and pesticides in international trade and Stockholm Convention on Persistent Organic Pollutants

Information on the:

- Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in the International Trade (PIC); and

-
- Stockholm Convention on Persistent Organic Pollutants (POPS)

is available on the Department of Foreign Affairs and Trade website at http://www.dfat.gov.au/environment/haz_chem.aspl.

National

Approved Criteria for Classifying Hazardous Substances [NOHSC:1008(1999)]

The National Occupational Health and Safety Commission (NOHSC) has declared amendments to the Approved Criteria for Classifying Hazardous Substances [NOHSC:1008 (1999)]. Notification of the amendments appeared in the Commonwealth Chemical Gazette of 7 December 2004 and the Commonwealth Government Notices Gazette of 8 December 2004.

Industrial Regulator - National Industrial Chemicals Notification and Assessment Scheme (NICNAS)

Relevant legislation - Industrial Chemicals (Notification & Assessment) Act 1989, as amended.