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The Australian Council of Recyclers: C/- P O Box Q625, QVB NSW 1230

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Australian  
Council of  
Recyclers

## THE AUSTRALIAN COUNCIL OF RECYCLERS – PROMOTING RECYCLING

### Introduction

The Australian Council of Recyclers (ACOR) is Australia's leading industry association representing companies involved in processing secondary, solid raw materials.

The organisation was established in 1983 to encourage recycling and to promote the recycling achievements of industry to the wider community, through seminars and a schools' education program.

In 1992, ACOR reviewed its roles and objectives and began to focus on being the primary resource to government and industry on consumer and industrial recycling. ACOR members actively liaise with Commonwealth, State and local government elected representatives and officials about environmentally and economically sustainable consumer and industrial recycling.

ACOR brings significant expertise and experience to the development of public policy on recycling and provides a range of support to industry, government and the community.

### ACOR membership spans these sectors:

- Cardboard
- Computers
- Construction and demolition material
- Ferrous Metals
- Glass Packaging
- Mobile Telephone Batteries
- Non-Ferrous Metals
- Paper
- Plastics

### ACOR's members are:

- ACI Glass Packaging
- ACI Plastics Packaging
- Alex Fraser Group
- AMCOR Recycling
- Australian Vinyls
- BHP Steel
- Brightstar Environmental
- Coca-Cola Amatil
- MRI (Aust) P/L
- Norske-Skog
- Metalcorp Recyclers Pty Limited
- Simsmetal Ltd
- Visy Recycling



Together, these companies recycle in excess of seven million tonnes of material annually.

ACOR's mission is to encourage governments, industry and the public to take actions that advance the optimal use of Australia's secondary materials and to facilitate the removal of barriers that hinder effective recycling.

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# ACOR Achievements

## Materials Recovery

Efficient and effective collection and recovery of resources is a high priority of ACOR members.

ACOR has facilitated significant developments for improved recycling including the development of the split collection/sorting contract for the collection of recyclables in 1999, with major waste collection companies in New South Wales and Victoria. ACOR funded the development of the first split Council contract in Victoria, which was further refined by Eco-Recycle and ACOR representatives. This system is now being promoted as a best practice model.



*Manly Council's recycling service*

## Recycling

ACOR's commitment to recycling extends from improved internal operations to improving the recovery of materials with minimal contamination. These measures will be achieved by:

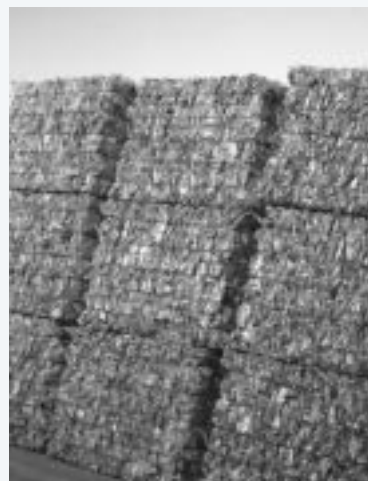
### Improving the Quality of Material Recovered

ACOR is seeking to improve the quality of materials collected by and delivered to members for reuse and reprocessing through the development of an Industry Recycling Specification Manual. This manual includes the quality specifications for materials delivered to members and Recycling Guides for Beverage and Food Manufacturers Marketing in different materials.

An abridged version of the first component of the manual - Kerbside Recycling Specifications - was published and distributed to 1,500 organisations Australia wide including local councils, waste contractors, affiliated organisations and Federal and State government representatives, in November 2000.

An industrial specifications edition of the newsletter is currently being researched for publication in 2001.

## PET recycling process



*Baled PET for recycling*



*Processing*



*Final PET resin*



*CCA's Prestons plant*

Over the next three years it is proposed that ACOR will facilitate the development and distribution of the Recycling Guides for Beverage and Food Manufacturers Marketing in different materials.

## Research and Development

ACOR members undertake extensive research and development programs to develop secondary markets for materials recovered for recycling.

ACOR members ACI Glass and the Alex Fraser Group, together with the CSIRO, worked on the development of cullet specifications for the use of glass fines in construction and road base applications in Victoria in 1999/2000 as part of an Eco-Recycle R & D Grant and members individual funding contributions. The specification will be included in the industrial specifications issue.

## Government Policy

ACOR members meet regularly with senior executives of Federal, State and local government to discuss issues of concern and opportunities in the recycling industry.

This has resulted in two ACOR members serving on the Queensland Government's Industry Reference Group, representation and development of the Packaging Covenant and representation on the NSW Kerbside Recycling Reference Group.

ACOR members will continue to meet with Ministers, government advisors and senior executives in the public service to assist in the discussion and development of key policy issues.

## Education and Promotion

ACOR's educational focus is on the efficient recovery, transport and processing of materials collected, with information supporting these efficiencies disseminated on a regular basis to waste contractors and collectors, local government, industry and government.

Public education on recycling is regularly undertaken by individual members who provide a range of promotional resources for use by local councils nationally. For example, ACI Glass, AMCOR, BHP Steel, Visy, Coca-Cola Amatil and Australian Vinyls provide information to local government and others for use in their community education materials.



The National Packaging Covenant

## National Packaging Covenant

ACOR supports and promotes the effective and efficient lifecycle management of packaging and paper – including reduction, recovery, reuse and recycling.

ACOR members were involved in the development of the National Packaging Covenant from 1997 – 1999 which encourages waste minimisation in all areas of the production cycle from manufacturers, fillers and retailers. Since becoming a Covenant signatory, ACOR has promoted and publicised the Covenant to its members and potential new members of the Council.

As a signatory to the Covenant ACOR is committed to:

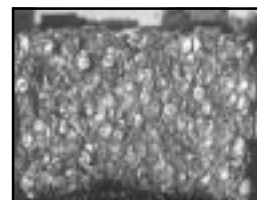
- Encouraging all members in the packaging chain to be signatories to the Covenant
- Promoting the effective and efficient lifecycle management of packaging products, and
- Fostering effective waste minimisation practices.

## Achievements

Since 1996 ACOR has:

- Developed with its member companies the industry manufacturing standards and receipt specifications for kerbside recycling materials
- Developed and funded the split kerbside recycling collection and sorting contract – now being promoted by EcoRecycle Victoria
- Effectively lobbied for the exemption of car batteries from the Hazardous Waste Tracking Mechanism
- Effectively lobbied for the acceptance of asphalt in roadbase for recycling.

For further information about the organisation: ring Mr Vince Chaplin, Metalcorp Recyclers on tel: (02) 9922 4622 or Peter Netchaef, Simsmetal on tel: (02) 9956 9100 or Charlie Woolford, Coca-Cola Amatil on tel: (02) 9825 7100.



# Acor Members – Company Profiles

*ACOR members' operations reflect the members' contribution to the Australian economy, as the companies collectively employ in excess of 100,000 people and divert over seven million tonnes of ferrous and non-ferrous metal, glass, plastic, paper and concrete from landfill annually.*

*With their focus on producing recyclate to world's best practice, most ACOR members already operate premises accredited to the international quality standard ISO 9002. In addition, many are either accredited, or working towards, ISO 14001 for their environmental management systems.*



## ACI Glass Packaging

ACI has been manufacturing glass containers in Australia since 1872. It currently produces glass bottles and jars in Victoria, NSW, SA, WA and Queensland for the food, juice, wine, spirits, beer and soft drink markets.

ACI has a long history of manufacturing new glass containers from recycled glass containers, this is a 'closed loop' process. Prior to 1985, ACI received the majority of recyclable glass containers from Drop-Off Centres. For over 15 years, ACI Glass Packaging has worked closely with local & state government and the collection network to implement and promote the kerbside collection of recyclables which has resulted in significantly increased recycling rates.

In 2000, ACI Glass Packaging converted in excess of 350,000 tonnes of old glass jars and bottles into new glass containers. Today, old recycled glass bottles & jars are the major raw material ingredient in the manufacture of new glass containers in Australia.



## ACI Plastics Packaging

ACI Plastics Packaging a major producer of PET bottles is committed to the further development of Australia's PET recycling industry. It's PET recycling Plant at Wodonga, on the Victorian/NSW border between Melbourne and Sydney was the first to open in Australia in 1991. Since then it has developed into an efficient operation using state of the art technology.

ACI, part of the Owen-Illinois group is constantly exploring new and end use markets for recycled PET on a worldwide basis. With the development of its multi-layer technology ACI was the first company to successfully use recycled PET in a food contact application as well as producing a fully closed loop recycling system.



## Alex Fraser Group

Alex Fraser was established in 1879 as a firm of metal importers and exporters. In the 1950's the company moved into scrap steel salvage and later, demolition. In the 1980's Alex Fraser pioneered concrete recycling in Australia – initially to find alternative uses for the concrete rubble being generated from its own demolition sites. The Group currently processes in excess of 750,000 tonnes of recycled concrete per annum and maintains an ongoing research and development program specialising in recyclable materials, technology and value added products. There are six specialist divisions: Concrete Recycling, Demolitions, Asphalt, Precast Products, Readymixed Concrete and Mobile Crushing Services.



## AMCOR

Arcor Australasia is a major manufacturer of metal, plastic and fibre packaging in Australia and New Zealand and is currently building a glass packaging plant in South Australia.

In Australia, the group manages Amcor's packaging paper mills and recycling activities. The group operates approximately 65 manufacturing plants and holds a significant market share in the region.

For more than 120 years Amcor has provided effective, innovative and economically viable paper and cardboard recycling services that have recovered and recycled more than 35 million tonnes of wastepaper and cardboard. The company recycles over 800,000 tonnes of waste paper and cardboard boxes into packaging each year. In addition to fibre packaging being recycled, Amcor's other key products such as aluminium and steel cans, and PET bottles are being recovered and recycled.



## Australian Vinyls

Australian Vinyls is a joint venture company owned by Orica Australia and the PolyOne Corporation of the US.



It is Australia's only manufacturer of Poly Vinyl Chloride resin (PVC or Vinyl).

It seeks continuous improvement in waste reduction, environmental management and public reporting. It is the project manager for the vinyl bottle recycling program. This includes a public commitment to increase the level of post-consumer PVC bottle recycling from current levels below 5%, to 25% within three years. This will mean the diversion of approximately 20 million Vinyl bottles from the kerbside waste scheme last year.

All Australian Vinyl bottle manufacturers have been invited to join this recycling scheme.

## BHP



BHP Steel recycles over two million tonnes of scrap steel every year in Australia, which includes around 30,000 tonnes of post-consumer cans. The company was responsible for the development of the first Steel Can Recycling Plan for Australia in 1991.

BHP provides facilities for the recovery and recycling of all canmakers manufacturing scrap. Nationally, canmaking operations generate approximately 28,000 tonnes annually. In the Eastern states it is processed at BHP's Port Kembla steelworks where it will be detinned, the steel scrap recycled into new steel products and the recovered tin returned to BHP for the manufacture of new tinplate. The small quantities generated in South Australia and Western Australian are exported for processing in Asia.



In the last seven years 67 balers and magnets have been provided through the programme with a total value of approximately \$2.25 million to councils recycling steel cans. The company is committed that all tinplate produced will contain approximately 20% recycled content.

## Brightstar Environmental



Brightstar Environmental is a subsidiary company of Energy Developments Limited (EDL), an Australian integrated energy company that develops, owns and operates power generation and waste resource, recovery and energy projects. EDL owns and operates over 300 megawatts of power generation plants and has over 300 employees. EDL is listed on the Australian Stock Exchange and has a current market capitalisation exceeding \$1 billion on the Australian Stock Exchange. EDL employs approximately 200 people at Richlands, Queensland, it's centre for project and technology development, manufacturing and operations support services.



Brightstar Environmental has developed the Solid Waste and Energy Recycling Facility (SWERF™) operation at Wollongong.

The SWERF™ process comprises four major technology components:



- Waste Reveal and Processing,
- Pulp Drying and Storage,
- Advanced Thermal Conversion, and
- Power Generation.

The Solid Waste and Energy Recycling Facility (SWERF™) is designed to recover the maximum value from the received waste streams. To do this, the SWERF™ uses a unique combination of technologies, which produce minimal impact on the environment.

Waste is received into the facility and is passed into an autoclave to sterilise and homogenise the waste stream. The homogenous waste stream is passed through a Materials Recovery Facility which removes the recyclable portion for recovery and sale to recycling markets. The organic portion of the waste is prepared for the gasification process by washing and drying the pulp. This process removes the glass, sand and grit for disposal at an inert landfill, or for value alternate reuse. The pulp is gasified and the resultant gas produced is cleaned for use as a fuel. The gas is used in spark ignition reciprocating engines to produce electricity for the grid. This electricity is then to be retailed as 'green' or renewable electricity.

### **Coca-Cola Amatil**



Coca-Cola Amatil (CCA) has invested more than \$100 million in the construction of PET bottle manufacturing facilities in all states, and a national PET reformation plant at Prestons in the South West of Sydney. This represents the largest investment ever in PET manufacturing and recycling in Australia. The reformation process developed by CCA will, for the first time, produce recycled content PET of food grade quality. During the process it is possible to rejuvenate the post-consumer PET (PC PET) material back to the quality and flexibility of virgin resin. This creates the ability to increase or decrease the percentage of recycled content without making any mechanical changes to the preform manufacturing process. Coca Cola Amatil currently recycles in excess of



13,000 tonnes of PC PET per annum.

### **Metalcorp Recyclers Pty Ltd**



Metalcorp Recyclers (a division of the Smorgon Steel Group), is the largest collector of scrap metal in the country operating at 33 locations across Australia. It is the major supplier of ferrous scrap to both Smorgons Laverton and Waratah steel mills and also a key supplier to BHP. It also exports surplus high quality ferrous scrap and non-ferrous metals into the Asian region.



In the 2000 financial year Metalcorp and Smorgon's scrap operations handled in excess of a million tonnes of ferrous material collected through both an extensive network of suppliers and directly from its own sites. Metalcorp also operates two secondary aluminium smelters that produce product destined for local and overseas markets.

### **MRI (Aust) Pty Ltd**

MRI (Aust) Pty Ltd commenced business in 1980 and has operations in Victoria and NSW. The company operates seven separate divisions including Computer & Telecommunications Recycling, Refurbishment, Cathode Ray Tube recycling, Battery recycling, granulation of copper products, manufacture of stannous chloride and environmental management.



MRI (Aust) Pty Ltd offers refurbishment of computer equipment and on-sale, or, the recycling and recovery of base and precious metals from computer, component parts. Recycled materials include Copper, Aluminium and resaleable items such as cooling fans and power supplies. Low value processed scrap is exported for more effective processing.

MRI in conjunction with the Australian Mobile Telephone Association has commenced take back programs for all major battery technologies to approved recycling centres in Australia, North America and Europe.

The company is currently involved in the first take-back recycling trial of televisions with Eco-Recycle Victoria



in Melbourne.

## Norske-Skog



Norske-Skog is the only Australasian newsprint producer. The company operates 3 mills in the Australasian region at Albury NSW and Boyer Tasmania and Kawerau in New Zealand. The company has operations in 11 countries worldwide and is the second largest newsprint producer in the world.

Prior to the opening of the company's Albury mill recycling plant in 1993 all collections of Old Newspapers were exported or used in liner board and corrugating medium manufacture.

The company's objective is to procure a long term, cost effective supply of ONP (Old Newsprint) and OMG (Old Magazine Grades) of suitable quality for the Albury Mill recycling plant. The company's commitments, made in conjunction with the Publishers National Environment Bureau in the National Kerbside Recycling Plan 2000 are:

- 250,000 tonnes per year of collections by 2005
- 74% recycling rate by 2005
- Stable pricing/demand.

In the last financial year in Australia the company collected approximately 200,000 tonnes, of which 170,000 tonnes was used at Albury and 30,000 tonnes of ONP (Old Newsprint) was exported.



## SimsMetal



SimsMetal is a global metals recycling, resource recovery and industrial services group. The company has more than 100 operations in nine countries.

Each year, SimsMetal collects and recycles in excess of one million tonnes of scrap metal in Australia and 3.6 million car batteries. In 2000, the company completed the installation and commissioning of new shredding facilities in Australia and the United Kingdom.

## Visy Recycling

Visy Recycling recycles paper, plastic, glass, aluminium and steel cans together with many other materials generated through kerbside recycling. The company has operations throughout Australia and New Zealand.

Visy Recycling recycles annually in excess of 850,000 tonnes of waste paper, 20,000 tonnes of plastics and 40,000 tonnes of glass, in addition to aluminium steel and liquid paperboard. The company's Material Recovery Facilities process in excess of 330,000 tonnes of kerbside materials each year. Visy's mini-Material Recovery Facilities are integrated with state-of-the-art and highly capital intensive reprocessing facilities.

Visy Recycling's glass operations now include in Victoria a multi million dollar high technology recycling system that will lead to higher glass recovery rates and higher quality recycled products. This opto-electronic sorting machinery automatically sorts glass into component colours and removes contaminants such as ceramics, porcelain and metals.

Visy Recycling's \$20 million plastics plant is a world leading facility which uses various technologies to automatically sort plastic bottles collected from kerbside into their various polymers and colours. These plastics are then converted to produce resins for manufacturing processes as an alternative to virgin raw materials. Visy can now produce recycled PET of food grade quality and has an extensive Research & Development program to develop in conjunction with manufacturers new and innovative uses for recycled plastics.

Visy Industries has 8 recycled paper mills in Australia and the USA producing paper and cardboard using 100% recycled paper. It is now commissioning a pulp and paper mill at Tumut in New South Wales which is due for completion by the end of 2001. The total project cost will be approximately \$400 million and will produce about 240,000 tonnes of unbleached brown packaging paper each year utilising a significant component of recycled material.

In addition the company established the Visy Technical Centre in 1998 for on-going research and development of more efficient and effective packaging and production methods. More than \$10 million is invested in the Centre's work each year.



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