

PENGUIN COMPOSITES

TASMANIAN
CLIMATE
CHANGE
OFFICE

CASE STUDY

THE PROJECT

The project will seek to reduce costs of waste disposal by finding alternative disposal methods for identified waste streams, including:

- co-processing of fibre composite waste
- recycling of cardboard and plastic film waste

BACKGROUND

The company manufactures high-quality fibre composite products for global supply chains in the defence, marine, energy and automotive industries.

A large proportion of waste generated in-process is offcut fibre composite material, which has very limited options for recycling or re-use.

OBJECTIVES

Reduce waste to landfill.

Maintain or reduce current costs.



After a component is de-moulded, it is trimmed to create a clean edge. The project explored secondary uses and other opportunities to divert this waste from landfill.

TARGETS

Reduce waste to landfill by 50%.

Maintain or reduce current waste disposal costs.



OUTCOMES

WHAT WAS IMPLEMENTED?

Recycling cardboard, co-mingled, steel, aluminium and drums.

Fortnightly kerbside pickup for co-mingled has begun for both sites.

More reliable metal recycler engaged - this one even pays us!

Staff education program has begun.

Collaborated and conducted experiments to seek secondary uses for fibre composites.

KEY ISSUES

How to deal with 'problem' wastes, eg fibreglass offcuts, resins and MDF - MDF is a real issue and can't be recycled.

We looked at many options for fibreglass but mainly tried to reduce waste generation at the source.

PERFORMANCE AGAINST TARGETS

We reduced our waste to landfill by approximately 35% across the site.

We were able to maintain our current costs as the return from the metal recycler has offset additional costs of recycling.



“Finding a solution for fibre composite waste would be ground-breaking and quite significant. I feel we have come very close.”

Darren Emmerton

Production Manager, Penguin Composites



Reducing inputs through more accurate measurement of raw materials, reduced 'problem' wastes at the source.

LESSONS LEARNT

Waste management can be really challenging, all businesses have their own unique problems.

It's great that Tasmanian businesses are genuine in their efforts to do something about it.

Touring the recycling plant really opened my eyes to the amount of waste that we all generate, it's actually quite mind blowing.

The Business Resource Efficiency Program (BREP) is delivered by Business Action Learning Tasmania (BALT) in partnership with the Tasmanian government.

For more information about BREP

Visit www.businessactionlearningtas.com.au/brep

For more information about this case study

Email BALT at admin@businessactionlearningtas.com.au

BREP participants included:

Nichols Poultry
Botanical Resources Australia
Direct Edge Manufacturing
Penguin Composites
Bridestowe Lavender
Red Brick Road Ciderworks
Jinglers Creek Vineyard
pitt&sherry
Drysdale Training Restaurant
CPT Engineering
ThinkBig Printing

Tasmanian Climate Change Office
GPO Box 123, HOBART TAS 7001
Phone: 03 6232 7173

Email: climatechange@dpac.tas.gov.au

Visit: www.climatechange.tas.gov.au

