

Case Study

Waste Management at Alcoa, Australia

Saving Money by Improving Environmental Management

Improved environmental management is often seen as a cost, and increased costs are used as an excuse for inaction. However, many organisations are learning that reducing waste or striving for cleaner production can actually improve profits. This is just one example.

Alcoa of Australia produces aluminium from bauxite mined in Western Australia. The bauxite is shipped to two smelters at Portland and Point Henry in Victoria. General waste was sent to landfill. Average monthly amounts were 3,000 m³ (Point Henry) and 1,083 m³ (Portland).

The company introduced a Waste Management Program in 1990 with the objective to reduce waste generation wherever possible and to reuse or recycle remaining wastes. A survey was carried to identify sources of waste and the types of material that were sent to landfill. Alcoa worked in cooperation with the Victorian Environment Protection Authority.

A number of initiatives were introduced as part of the Waste Management Program. These included: an improved scrap metal management program, turning waste timber, packaging and garden waste into compost for use on gardens and surrounds, improving collection and compaction services for paper, aluminium cans, organic waste and other recyclable material, a management program to increase the recovery and recycling rate for oils, and using refractory brick recovered from furnaces as base course for hard stand areas, and where appropriate, on site access roads. Other strategies included developing a purchasing policy to reduce the amount of packaging material coming onto the site and a clean technology program to refine source separation and reduce waste.

The results are summarised in the table below.

Site	Activity	Outcome	Annual Cost Saving
Portland	Reduced waste disposal to landfill	99.87% reduction from 12,996 m ³ to 16.5 m ³ per year	\$540,000
	Increased oil recycling		\$162,000
Point Henry	Reduced waste disposal to landfill	97.77 % reduction from 36,000 m ³ to 800 m ³ per year	\$1,000,000

Full details of this case study can be found at: <http://www.ecorecycle.vic.gov.au> Then click on <Publications>, <Waste Reduction in Commerce Industry and Government>, <Case Studies>, and <Alcoa of Australia>

Exercise

Brainstorm activities that could be introduced at your site that would save money. These could range from reducing waste disposal costs, as illustrated here, to reducing insurance costs by improving risk management at the site.