



PROJECT OUTCOME

CV LAUNDRY

CV Laundry has implemented cleaner production initiatives that have resulted in increased productivity and better management control.

CV Laundry is also a participant in the Central Victorian Eco-Efficiency Project, an initiative devised and facilitated by the Australian Industry Group through funding support from EPA, Australian Government Department of the Environment and Heritage and Sustainable Energy Authority Victoria (now Sustainability Victoria).

BACKGROUND (2004)



CV Laundry is a company situated on an industrial estate in Bendigo. It has been operating for 13 years and services around 80 per cent of Bendigo's hotels, motels and restaurants. It employs six full-time

and four part-time staff.

CV Laundry operates industrial washing machines, dryers and ironers. Around 260 tonnes of laundry are processed annually. Five per cent of the business is nappy washing.

THE PROCESS

The site has a boiler to supply steam and hot water for the processes. In addition, hot water is also supplied by two small hot water units. The washing process consists of a standard cyclic process in which detergent is automatically supplied to the newer machines depending on the process requirements. The tumble dryers use gas directly fired.

The ironer, comprised of hot rollers, is steam heated. Water contained in the wet sheet is evaporated when it comes into contact with the hot roller and is drawn into the centre of the roller by the pressure gradient. The resulting hot air plus water mixture is sent to the atmosphere.

THE INITIATIVE

Voluntary participation in the Central Victorian Eco-Efficiency Project in 2003 provided CV Laundry with the support they needed to identify many opportunities for improvements.

The cleaner production initiatives included:

Wastewater

Normal washing cycles generate wastewater that is sent to sewer. Although the water at the site is properly managed, the impacts associated with resource consumption and wastewater disposal were reduced. It was proposed that the number of rinses at each cycle could be reduced by increasing the number of spins in between. Trials undertaken confirmed the viability of this option.

Removal of one rinse per cycle not only reduces water consumption to around 100 litres per cycle, but also reduces the time required to complete a full wash cycle (3 minutes per cycle), thereby enabling increased throughput (two extra washes per day). More importantly, this initiative has deferred the need for capital expenditure in the order of \$40,000 required to meet current production demands.

Hot water

Hot water units were continuously left on, even though the laundry operates five days a week, from 7am to 5pm. A timer on the units was installed so that they only operated when required, reducing electricity consumption and associated costs.

Detergent loading flush

Current washing cycles were set up to flush detergent for 90 seconds per cycle. This process has been reduced by 50 per cent to 45 seconds, saving 960 litres per day of cold water flow, which consequently results in heat load reduction as less cold water is required for the cycle.



ADVANTAGES OF THE PROCESS

The benefits to CV Laundry from these cleaner production initiatives have been substantial. The table below summarises the benefits.

Economic Benefits (2003)			
Initiative	Costs	Savings	Payback Period
Eliminate one rinse per cycle	Minimal, only need to change the logic control on the machine	2000 litres of water per day, 2 extra washes per day, \$40,000 capital expansion program deferred	Immediate
Timer on hot water unit	\$40	Reduced electricity consumption by approximately 1200kWh/year, which equates to cost savings of approximately \$75 per year and greenhouse gas emission savings of approximately 1700kg CO ₂ -e/year	Approximately six months
Detergent loading flush	Minimal, only need to change the logic control on the machine	960 litres per day	Immediate

CLEANER PRODUCTION INCENTIVE

CV Laundry demonstrated their commitment to cleaner production ideals by becoming a voluntary participant in the Central Victorian Eco-Efficiency Project. They benefited from the advice and guidance of environmental consultants of Parsons Brinckerhoff, who visited the site to identify their specific business requirements.

BARRIERS

Like many small to medium enterprises, especially in non-metropolitan areas, available resources are often minimal. However, participation in this program has allowed CV Laundry to further investigate low cost cleaner production initiatives that could result in resource conservation and increased productivity.

FURTHER DEVELOPMENTS

Based on the successful implementation of the above cleaner production initiatives, CV Laundry would consider other long-term strategies that were recommended as part of the Central Victoria Eco-efficiency project, including:

- hot wastewater recovery
- solar hot water systems.

CONTACT DETAILS

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