

Environment

Cement and lime products are essential components of the human environment that supports the modern lifestyle we enjoy today. Cement holds together much of our infrastructure: from roads to houses; dams to water treatment systems; and schools to hospitals. It is hard to envision a safe and healthy society without cement.

Our operations such as quarrying and cement manufacture, convert a resource in the ground into sustainable improvements in the areas in which we operate and where our products are used.

Environmental effects associated with the production of cement and lime include local effects from cement dust, noise, wastes, traffic and access to natural resources. More wide reaching effects include producing carbon dioxide as part of the manufacturing process. Our operations also provide opportunities for improving overall resource sustainability, such as recycling the waste of other industries in an environmentally responsible way. There are also opportunities for enhancement of biodiversity through proactive environmental programs.

Policy

We are committed to achieving a safe, productive and healthy work environment through responsible business management and in a manner designed to protect our employees, adjacent communities and the natural environment. Our Environmental Policy is supported by specific goals

including conformance with legal requirements as a minimum, and going beyond these requirements where necessary for responsible management of our operations. In particular, we have nominated goals with a clear focus to reduce the effects on our operations and in providing efficient use of energy, water and other resources as well as committing to limiting waste generation and disposal.

Management Systems

We have this year established a new Adelaide Brighton Environmental Management System that is being progressively implemented. This System is designed to manage all activities that may have an effect on the environment to ensure minimal potential effects from operations and maximising resource sustainability and conserving biodiversity of natural resources.

Specific training and an internal and external audit process, which is comprised of operational and improvement objectives, support this system. Continuous improvement is incorporated by audit and user feedback, and is used to revise internal standards and implement better practice.

Management systems at Birkenhead and Angaston plants in South Australia have been independently certified to the requirements of the Australian, New Zealand and International Standard AS/NZ ISO 14001 which reflect better practice in environmental management systems. The requirements of these Standards are incorporated into the Company's new Environmental Management System.

Performance

Our operations are subject to various Commonwealth and State laws governing the protection of the environment. Environmental licences for operations include requirements specific to each site and each state. Environmental compliance is reported monthly to the Board. A summary of the Company's performance for the year 2000 is shown in the accompanying table.

There were no material breaches of environmental statutory requirements and no prosecutions during the year. However, there were some minor non-conformances with licence conditions. All licence breaches are reported to the relevant statutory authority.

National Pollutant Inventory

All Adelaide Brighton operations submitted information for the National Pollutant Inventory (NPI) program. This report to the Federal Government and the public is a compilation of either empirical data or measured values of 36 compounds, and is available on the Internet through the Environment Australia website. The NPI is a detailed inventory of environmental emissions and has been ultimately designed to improve the management of resource materials throughout the cement manufacturing process through their optimal use.

Environmental Protection, Biodiversity and Sustainability

We are proud of our achievements, but recognise that we still have many challenges ahead such as improving dust management, reducing water usage and

Environmental incidents			
Non compliance incidents		2000	1999
Category 1	Minor potential effect to the environment. Resources are committed to achieving quick resolution. There is unlikely to be any regulatory or community reaction.	190	Not available
Category 2	Significant potential effect on external environment. Resources are committed to achieving resolution and the regulatory authorities are aware of plans for this to be done. The community may express concern.	-	-
Category 3	Significant potential effect on external environment. Regulatory authorities are aware of the problem, are pressing for resolution, and may prosecute. The community is likely to express concern.	-	-
Category 4	Very significant potential effect on the external environment. Action must be taken immediately, and prosecution is likely. The issue will lead to complaints from the community.	-	-
Total		190	Not available
Fines		-	-
Prosecutions		-	-
Community complaints		169	198

controlling run-off. A number of our programs involve working with the local communities and councils, with whom we regularly share information, and gaining feedback on issues of potential effect to those communities.

During the year Birkenhead and Angaston operations have undergone independent audits and renewal of their certification under ISO 14001. These sites were the first cement operations in Australia to achieve this standard. This process certifies the Company's achievements in managing our environmental performance and resource sustainability.



COCKBURN CEMENT'S ARTIFICIALLY CONSTRUCTED FUNCTIONING WETLAND ALLOWS FOR RECYCLING OF PROCESS WATERS AND PROVIDES A VALUABLE EDUCATIONAL RESOURCE FOR LOCAL SCHOOLS AND COMMUNITY GROUPS. THIS PROJECT WAS SELECTED AS A FINALIST IN THE NATIONAL BANKSIA ENVIRONMENTAL AWARDS 2000

In September 2000, Cockburn Cement was awarded a "Golden Gecko" award for environmental excellence as a result of the Company's seagrass transplantation program. This award program, run by the Western Australian Department of Mines and Energy, recognised the Company's leading-edge work in protection of the environment and enhancement of biodiversity and resource sustainability.

In addition, Cockburn Cement has constructed a functioning wetland, which was selected as a finalist in the Land, Bush and Waterways category of the National Banksia Environmental Awards 2000. These Awards are among Australia's highest recognition for environmental performance.

The Geelong Cement operation, which has provided cement to Australia for nearly a century, is scheduled for closure in 2001. A comprehensive environmental assessment has identified relatively few areas that will require remediation prior to the cement works being demolished and the area rezoned for other uses. In addition, the cement plant's quarry is to be converted to a freshwater lake, an enhancement to the environmental biodiversity and sustainability of the area, at an estimated cost of up to \$8 million.

Adelaide Brighton projects throughout Australia are continuing to contribute to the environment, biodiversity and resource sustainability through our environmental management system, through the minimisation of effects and the rehabilitation of affected areas.

Climate Change

Governments around the world are discussing national and international climate change policies to curb greenhouse gas emissions. The cement and lime production process, by its nature, is different from those of most industries. When the calcium carbonate in limestone or shellsand is changed into calcium oxide during the production of cement and lime, carbon dioxide is liberated. This chemical process provides a challenge to the cement industry in identifying methods to reduce emissions.

Recognition is needed by government that cement and lime are freely traded international commodities. Australian producers do not receive any special support from government and must remain internationally competitive. Major investment over the last ten years has seen the introduction of new technology, mostly dry-process kilns, which are more fuel-efficient and therefore enhance resource

sustainability. As an import-competing industry it is essential that any measures contemplated by government have an equal effect on imports or Australian production will be transferred to less efficient facilities in Asia, with a resulting increase in environmental effects on a global basis.

Adelaide Brighton, through its membership of the Cement Industry Federation, is an active supporter of the Greenhouse Challenge Programme.

Toward a Sustainable Cement Industry

"development that meets the needs of the present without compromising the ability of future generations to meet their own needs" *WBCSD Sustainable Cement Project*.

Started in February 2000, this two-year initiative under the lead of the World Business Council for Sustainable Development (WBCSD) aims to define how the cement industry can become more sustainable. Initiated by a group of cement companies, the project will solicit the views of a large number of stakeholders as part of an independent investigation into the specific challenges, barriers and opportunities facing the industry in its drive toward greater sustainability. Ultimately, the project aims to pave the way for positive changes over an extended period that will make the cement industry a leading participant in a globally sustainable future. More specific information on the cement industry and sustainability is available on the web site - www.wbcscement.org

In addition to the examples of sustainability related previously, Adelaide Brighton is actively participating in this study through RMC who is one of the eleven member industry working group.