



# 2003 Report

ENVIRONMENT, HEALTH, SAFETY AND THE COMMUNITY

**Cover photo:** Trevor Turvey (left) and Damian Turvey at the Ngalang Boodja nursery in Collie, Western Australia. The nursery provides and plants seedlings for mine rehabilitation. Its involvement with Premier Coal is described on page 28.

# CONTENTS

31m		
	5	Ŷ

About this report	2
Bunnings	4
Curragh	14
Premier Coal	24
Kleenheat Gas	36
Wesfarmers LPG	44
Wesfarmers Industrial and Safety	50
CSBP	56
Sotico	68
Other Businesses	74
Verification statement	76
Glossary and feedback	77

# About us

We are one of Australia's largest public companies with operating revenue of \$7.8 billion in 2002/2003, a net profit of \$538 million and a market value at 30 June 2003 of \$9.5 billion.

We employ about 27,000 people on a full, part-time or casual basis and have interests in home and garden improvement products and building materials; coal mining; gas processing and distribution; insurance; chemicals and fertilisers manufacture; industrial and safety product distribution; rail transport and forest products.

More details on the business units covered in this report are included at the start of each section.

Our business units have a high degree of operational independence but groupwide policies and standards apply in some areas. Those most relevant to this report include:

- a target of reducing the Lost Time Injury Frequency Rate by at least 50 per cent each year on the way to zero;
- a requirement for a programme to manage environmental, health and safety risk exposure and the development of systems to ensure compliance with licence conditions, notices, regulations or other statutory requirements;
- development of a Crisis Management Plan;

- annual compliance reporting to subsidiary boards and, through them, to the Audit Committee of the Board of Wesfarmers Limited on issues including environment, safety and health and crisis management; and
- preference for company-supplied vehicles to run on liquefied petroleum gas.

While almost all of our employees work in the business units, we have a head office in Perth which employs about 100 people. They provide a range of services including:

- administration
- · accounting and treasury
- legal
- human resources
- business development
- risk management
- · information technology
- · public affairs

# Areas covered



Business management



Environmental



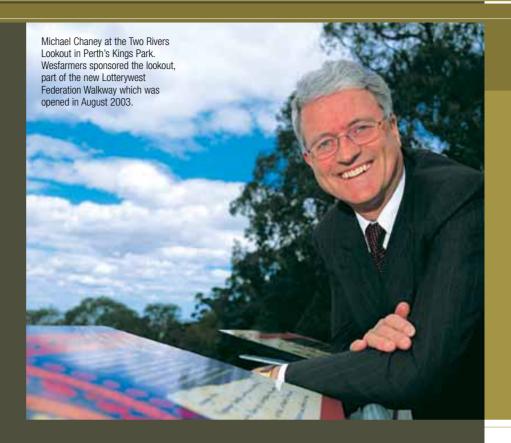
Safety and health



Community



Wesfarmers is a member of the Dow Jones Sustainability World Indexes.



# Welcome from the Managing Director

The publication of this report provides us with the opportunity to review our environmental and safety performance and the way in which we've reported on these issues since our first effort in 1998.

There is no doubt that there now exists across our very diverse group a much better understanding of the importance of this process of public accountability. As well as meeting the public demand for more information on non-financial performance, there is growing interest from investors on how companies address the issues covered by this report.

Last year I made reference to a disappointing safety outcome in many of the businesses. It is pleasing to note that, led by outstanding results from Premier Coal and Kleenheat Gas, there was improvement across almost all of the operations. At Bunnings, a major campaign is underway to tackle its unacceptably high accident rate.

Progress was made by CSBP and Sotico in addressing land contamination issues and Bunnings adopted a policy aimed at ensuring, over time, that supplies of wood and wood products can be traced back to legally-operating and sustainably-managed forest areas. The group-wide greenhouse emissions assessment referred to last year has been completed and will form the basis of our ongoing approach to this issue.

Our efforts to improve stakeholder consultation continued with the formation of a reference group at Collie by Premier Coal and a forum convened by CSBP at Kwinana.

We are pleased to be included in the Dow Jones Sustainability World Indexes for 2004. This ranks Wesfarmers in the top 10 per cent of the biggest 2,500 companies in the Dow Jones World Index in terms of economic, environmental and social criteria - one of only 16 Australian corporations so recognised.

I hope you find the contents of this report informative and interesting. It would greatly help us continue to improve this publication, and our performance, if you were able to take the time to fill in and return the feedback form or to register comments through our website.

Michael Chaney
Managing Director

# About this report

# TIMING

Welcome to our sixth report on environmental, safety, health and community issues. It covers the financial year ended 30 June 2003. In a few cases, where there have been developments after the end of the reporting period, but prior to the printing deadline, we have included this information to make the report more time relevant.

# **COVERAGE**

The report this year includes for the first time our Industrial and Safety businesses acquired in the takeover of Howard Smith Limited in August 2001. All other wholly-owned business units as at 30 June 2003 are covered, with the exception of the rural services and insurance division. The rural services business (Wesfarmers Landmark) was sold at the end of August 2003 to AWB Limited and we have decided not to report on its activities as they have no ongoing relevance to our group.

The insurance arm of the business unit (Wesfarmers Federation Insurance) joined in October 2003 with the acquired Australian and New Zealand operations of Lumley Insurance in a new business unit. The nature and availability of data will determine what can be reported on our insurance activities next year.

# SAFETY PERFORMANCE DATA

Readers will notice on the safety performance graphs at the start of each business unit section, a reference to statistics being for the year to 30 June but "as at 30 September 2003". This is because we adjust the numbers to take account of workers compensation claims lodged, or lost time that has been reported, up to 30 September relating to injuries sustained in the financial year under review, thus allowing for delayed impacts. It can mean that the numbers reported for a particular year have to be changed in subsequent reports.

The basis for calculating our main safety performance indicator – the Lost Time Injury Frequency Rate (LTIFR) – is outlined in the Glossary on the inside back cover

Most LTIFR numbers in this report include contractors. Where it is possible to calculate an LTIFR for contractors – that is, where there is regular engagement and hours worked are available – the business is required to report a contractor LTIFR.

# REPORT PREPARATION

Data collection and report drafting is the responsibility of business unit environmental and safety representatives who are part of a Working Group convened by the Corporate Office which provides legal, risk management and public affairs assistance. Drafts are reviewed by the Corporate Office prior to detailed discussions with the contributing authors. This process ensures that ultimate ownership of the report lies with the business units.

# **VERIFICATION**

The report's accuracy and completeness is critically important and every effort is made to ensure that all statements can be properly authenticated.

After the discussions referred to above are complete and a final draft agreed on, the business unit representatives are required to compile detailed checklists linking report content to documented source material or employee sign off.

Representatives from our Corporate Solicitors Office and Group Risk Management department then conduct sample verification checks through site visits and desktop audits. They later prepare reports for senior management.

The internally-verified reports are provided to independent assessors from the Snowy Mountains Engineering Corporation (SMEC). SMEC was engaged in 2000 to conduct the external verification process and to prepare a detailed report to business unit and Wesfarmers Limited management. A five-year plan prepared by SMEC in 2000/2001 was adopted and forms the basis of our commitment to the ongoing improvement of this publication. SMEC's findings on this report are published on page 76.

# **FORMAT**

Again this year we have used a format suggested by SMEC which aims to increase the transparency of the document by requiring businesses to report under standardised headings. Occasionally items may not fit entirely logically in these classifications, but we have continued with the layout because we believe it enables readers to more easily make cross-business comparisons. Not all of the categories appear in all of the reports. This means either that the heading is simply not applicable to a specific operation or that a business is unable to supply the necessary data. Gaps are thus identified and the businesses concerned need to consider whether these can be closed.

An alternative to this approach, for the environmental sections, would be to group all information under subject headings relating to the issue – such as waste disposal or water use. That could be suitable for a single-focus business (such as a mining enterprise) but less so for a company such as ours which operates in a number of quite different business and industry sectors. We believe greater accountability is achieved by dealing with the issues on a business-to-business basis using the format referred to above.

# **NEW FEATURES**

This year for the first time each whollyowned business unit nominates its three main environmental and two main safety issues. The intention is to identify some of the challenges facing our businesses on an ongoing basis. Reference to these issues does not necessarily mean that, in the year under review, they were the focus of most attention. But these are areas which have underlying significance to their operations.

Reference is also made by each of these businesses to their major stakeholders. Stakeholder identification is a step in the ongoing development of this publication towards broader sustainability or triple bottom line reporting.

Another change this year is the introduction of brief reports on two partly-owned businesses for which we have management responsibility – Air Liquide WA and StateWest Power. We also mention other businesses with which we are associated – the Australian Railroad Group, Bengalla coal mine, Wespine plantation softwood sawmill and the Queensland Nitrates ammonium nitrate plant. As we do not directly manage these operations we do not attempt to report on them. Links to websites are provided for readers wishing to learn more about their activities.

# COMPLETENESS

We do not claim that this report provides 100 per cent coverage of our safety, environmental and community relations performance. There are gaps in our knowledge which will be reduced as our systems improve, particularly with respect to newly-acquired or merged businesses. This document is a best endeavours attempt to report openly and honestly based on our current state of knowledge.

# **GLOSSARY**

Within each separate report we aim to eliminate as much jargon and technical terminology as possible and to spell out the names of organisations when they are first mentioned. We have used current names of government departments and other regulators even though their designations may have been different during the reporting period. A general glossary can be found on the inside back cover.

# WEBSITE

The full report is available on our website at www.wesfarmers.com.au. Additional hard copies can be obtained from the Public Affairs department on (61 8) 9327 4251.

# **FEEDBACK**

Please help us improve the report by sending us your comments on the form on the inside back cover or by registering them on our website.

# Wesfarmers and the community

The main contribution we make that benefits our society is the operation of successful businesses which generate employment, provide high levels of customer service, create markets for suppliers and enable us to meet our primary objective of providing satisfactory returns to shareholders.

But we believe there is an added obligation on companies to respond to the attitudes and expectations of the communities with which they engage and on whose support they depend.

The first such "community" are the people who work for us. Much of this report deals with the safety management, training and other systems designed to provide a safe and rewarding working environment for our employees.

Part of our broader community response involves the setting of high standards with respect to corporate governance and market disclosure, details of which are contained in our Annual Report. That response includes also a willingness to make direct contributions to community-benefitting organisations and causes.

# **DONATIONS**

Many of our businesses provide information in this report about their community involvement by direct financial assistance and the way in which their employees work constructively with a wide range of organisations.



Apart from this significant contribution, the Board of Wesfarmers Limited each year provides major financial support — up to 0.25 per cent of pre-tax profits - based on criteria designed to maximise the benefit of these funds. The criteria include a preference for defined-term commitments; directing support to organisations rather than individuals; community-wide, rather than localised benefits; and contributions which are usually not part of broadly-based public fund raising appeals. The Board then considers requests for assistance within certain categories.

A major focus of our contribution has been the advancement of medical research. During the year, we made the final payment in a five year, \$1 million a year commitment to the Western Australian Institute for Medical Research. Other areas to receive support include remote area medical services provided by the Royal Flying Doctor Service, child health research, tertiary education and indigenous advancement.

# SPONSORSHIP

Our major corporate-level sponsorship involvement is the award-winning Wesfarmers Arts programme which provides \$450,000 to support leading visual and performing arts companies and organisations. In late 2002, an exhibition drawn from our extensive collection of Australian art began a national tour, with assistance from the federal and Western Australian governments' touring exhibition agencies, Visions of Australia and Art on the Move. After opening in Perth at the Art Gallery of Western

Australia, the exhibition went to Geraldton (Western Australia), Cairns (Queensland) and two venues in Victoria. It is to be seen also in Mount Gambier (South Australia); Canberra; Armidale and Wagga Wagga in New South Wales; Hobart; and Bunbury (Western Australia).

In October 2003 we announced a major new arts initiative involving the commissioning of a series of works in collaboration with the Perth International Arts Festival to be presented from 2005 to 2007.

# **EARTHWATCH**

Both the broader community and employees benefit from our long partnership with the internationally-respected Earthwatch Institute. Each year we provide employee fellowships for participation in environmental research projects in Australia and overseas which help increase awareness of environmental issues and contribute to personal enrichment.







**WA SALVAGE** 



# Bunnings

We are Australia's leading retailer of home and garden improvement products and a major supplier of building materials. Sales during the year reached about 3.4 billion dollars. At 30 June 2003 we had 116 warehouse stores and 95 smaller traditional stores in Australia and New Zealand, as well as 18 WA Salvage discount variety stores in Western Australia. We employ about 19,000 people.

Our three main environmental issues are packaging waste, chemical storage and handling and resource use.

We implemented an action plan aimed at minimising the impact of packaging waste on the environment.

We continue to review our chemical storage and handling practices.

At our national support centre in Western Australia we introduced an 'eco-office' project to identify opportunities to reduce resource usage.

Our two main safety issues are manual handling by team members and traffic management for movement of vehicles and pedestrians around sites.

The number of injuries arising from manual handling practices has reinforced our commitment to focus on safe working procedures. Behaviour-based safety strategies have been commenced to entrench safety in our daily activities.

Traffic management between trucks, forklifts and pedestrians in our yard areas is closely monitored and a "spotter" is used where required. Strict forklift curfews exist where no access is permitted to the retail floor during peak customer periods.

It has been a disappointing year in our overall safety performance with a continued rise in our Lost Time Injury Frequency Rate (LTIFR). We have embarked on a re-engineering of our Safety Management System (SMS) with the creation of the BSAFE (Bunnings Safety Awareness For Everyone) programme designed to sustainably improve our safety performance to best practice standards. As part of this approach we are looking at our safety culture from the top down and using external consultants to assist with training and risk assessment.

This report covers the Australian and New Zealand activities of Bunnings and WA Salvage, including former Hardwarehouse, BBC Hardware and Benchmark Building Supplies stores. To assist in data collection and improving our knowledge of environmental, health and safety issues we conduct an annual survey of all locations.

This is the first time that safety statistics have been included for our New Zealand operations.

# LOST TIME INJURY FREQUENCY RATE



# NUMBER OF WORKERS COMPENSATION CLAIMS



# 2002 REPORT PRIORITIES

OUTCOMES

Improve safety performance by halving our LTIFR each year with zero lost time injuries our ultimate aim.

LTIFR for Australian operations up from 8.4 last year to 18.3. Workers compensation claims up from 860 last year to 1,061. (Note that last year's figures did not include NZ data but this is included this year

Improve the safety culture by promoting safe behaviours and use of risk assessment and hazard identification in daily routines.

National occupational health and safety manager appointed to drive programme. Dupont safety culture review. Creation of senior executive safety leadership team.

Adopt a formal environmental policy and commence implementation of an Environmental Management System based on AS/NZS ISO 14001.

Progress made with environmental policy development in the areas of wood product sourcing and waste disposal. Implementation of an EMS delayed due to attention to these issues.

Identify opportunities to improve the social and environmental wellbeing of the communities in which we operate.

Increase in sponsorship from \$1.5 million to \$2.65 million nationally. Running kids' workshops with environmental themes in schools and during World Environment Day.



# **TRAINING**

Training and development programmes covering safety, health and the environment continued across many areas.

To provide better access to training for our entire store network we are currently evaluating on-line learning systems that can be delivered through our Intranet.

# **Environmental**

Environmental awareness training is delivered through a comprehensive internal programme covering dangerous goods, hazardous substance storage and use and waste disposal. This is part of the induction process for new team members and is presented to store management teams, safety committees and those involved in merchandising and fit-outs.

Access to training information is available on our Intranet and ease of access improved through an upgrade of our computer network and monitors in stores.

# Health and Safety

The new team member induction programme continues to focus on safe behaviours and hazard identification.

A refresher course has been completed by 746 New Zealand team members as part of the adoption of our Occupational Health Safety and Environment (OHSE) standards.

The induction booklet "Bunnings and You" is provided to all team members as their personal reference guide to OHSE policy and procedures.

A new safety video featuring our Managing Director is currently being reproduced for every store. An accompanying twenty-minute discussion guide will be shown to every team member to reinforce the safety message.

Manual handling training is continuing in the form of hands-on training in lifting techniques and practical risk assessments. Store management are being trained in specific risk assessment techniques with emphasis on manual handling hazards. In-store trainers are selected to pass on the information within their stores.

Training for new safety and health representatives is undertaken by accredited training providers.

A review of existing training for operation of hazardous plant and equipment has commenced. Updated training for forklifts and elevated work platforms has been developed and we have commenced this training for operators.

# Emergency

Emergency plans have been reviewed. Changes to Emergency Control Organisation members have been identified during audits with updates and training provided where required. Increased focus has been given to conducting emergency evacuation drills.

First aid training is kept current so that qualified assistance is available at all stores.

# COMPLIANCE

# Environmental

To assist ongoing compliance we keep up-to-date with any changes in regulations by subscribing to a numbe of professional journals and Australian Standards.

We also monitor websites of state and federal authorities.

Our involvement as a signatory to the National Packaging Covenant has greatly assisted us in developing relationships with government environmental agencies. Our first year action plan was approved and published on the Packaging Council of Australia website at www.packcoun.com.au.

Our action plan has been a mechanism for us to bring together a number of varying environmental and eco-efficient strategies. Through our cross-functional working group we are better able to focus our efforts on projects that deliver environmental benefits and business efficiencies. As a result of this process we are working collaboratively to reduce waste.

Having joined the Covenant prior to the National Environment Protection Measure being introduced in Western Australia, we have worked closely with the Western Australian Environment



New traffic management markings guide goods deliveries at the Bunnings Warehouse in Balcatta, Western Australia.

Protection Authority (EPA) to provide information that may assist others in developing action plans.

Case studies on our action plan have been published in the EPA National Packaging Covenant (NPC) newsletter and presentations have been made to the Western Australian jurisdictional kerbside recycling group to provide insight into how businesses are approaching their commitments.

We were invited to the NPC forum on a sustainable packaging alliance in April 2003 where we presented our sustainable wood product policy as part of the case for sustainability of supply chains.

Other key environmental achievements during the year included:

• Paint waste recovery: We joined our suppliers Dulux and Victoria EcoRecycle in an Australian recycling first to recover waste paint from householders. Over a weekend in March 2003 at our South Oakleigh store in Victoria, a car park paint recovery site was set up with 1,800 litres of waste paint and hundreds of empty cans recovered for recycling. This former landfill waste was reprocessed into low-grade fence paint and new steel cans. This can be made available for sale through our stores, completely closing the recycling loop. We are working on the challenge of further developing the trial concept to provide permanent waste paint recovery

- stations at stores as part of our environmental commitment.
- Plastic bag reduction: We have made a commitment to reduce plastic bag usage by actively offering customers alternatives. Our policy includes:
  - always having boxes and cloth bags available as an alternative to plastic bags;
  - educating our cashiers on our aim to reduce landfill and impact on the environment by using less plastic bags; and
  - encouraging our cashiers to ask each customer "Do you need a bag?" instead of "Would you like a bag?" and encouraging other available options.

In August 2003, we announced a fee of 10 cents per bag up to a total of 50 cents per customer for those opting to use plastic bags. All of the funds will be donated to the Keep Australia Beautiful Council.

 "Eco-office: We have embarked on an eco-office programme at our national support centre in Perth. This has received an enthusiastic response with the creation of an office green team to drive various strategies, including switching to recycled content forms and stock items and examining ways to reduce our energy and water consumption.

This eco-office concept is to be further developed and implemented at all store support facilities.

 Dangerous goods: Our stores contain dangerous goods in small consumersized packages of 20 litres or kilograms or less. These include flammable liquids, flammable gas, pool chemicals, acids and garden chemicals.

We have an internal risk management programme modelled on:

 National Occupational Health and Safety Commission (NOHSC)
 Standard for control of workplace hazardous substances [NOHSC: 3018(1994)];

- NOHSC Standard for Storage and Handling of Workplace Dangerous Goods [NOHSC: 2017(2001)]; and
- AS/NZS 3833:1998 for the storage and handling of mixed classes of dangerous goods in packages and intermediate bulk containers.

Controls are in place to manage quantity limits of certain volatile and flammable dangerous goods and to ensure strict separation of reactive substances.

We take care in our merchandising layout for high-level Schedule 6 poisons by adopting a minimum storage height of 1,200mm to restrict access by children.

Liquefied Petroleum Gas (LPG) decanting equipment and 9kg exchange cylinders are also stored on sites with appropriate safe operating procedures and licensing as required.

# Health and Safety

We operate under health and safety legislation that varies between states.

Initiatives such as externally-conducted risk assessments, safety committees, hazard inspections and internal audits assist us to identify and address any areas of risk or non-compliance.

During the year there were three incidents that resulted in commencement of prosecutions by the Queensland Work Health Department. These issues relate to traffic management hazards in the delivery and unloading of goods at our Caloundra frame and truss site and our Mackay store and provision of guards to a woodworking machine at the Bundaberg frame and truss site. The results of these ongoing legal proceedings will be reported next year. The hazards associated with these incidents have all been addressed.

An infringement penalty notice was received at our Everton Park store in Queensland for obstructing the six metre clearance lane around a building and omitting to service one fire hydrant. The obstruction was cleared and our maintenance contractors accepted responsibility for the fire hydrant service oversight.



A waste paint recovery site at the South Oakleigh store in Victoria which collected paint from householders for recycling. A penalty notice was received from a local council by our Belrose store in New South Wales for allowing rinsing water from a paint spillage cleanup to enter storm water drains. The issue was rectified and there was no adverse impact on water quality.

A coroner's inquest into a fatal forklift accident at our East Maitland store in 2002 concluded in August 2003 with recommendations that:

- a risk assessment be conducted for the operation of forklifts on gradients;
- regular maintenance records be maintained; and
- safe work procedures be reinforced with operators.

These areas are being continually addressed and have been a particular point of focus since this accident. Traffic management and forklift operation forms an important part of our safety strategy.

We received 28 official notices or fines from relevant authorities covering safety and environmental issues, such as forklift operations and traffic control, storage of dangerous goods, machinery guarding, fire safety and chemical spillage.

All notices were resolved by the specified date.

A ruptured fuel tank on a delivery truck spilled 500 litres of diesel into a storm water drain at our New South Wales distribution centre in Smithfield. The NSW hazmat team managed the incident to avert any environmental damage.

# Licensing and approvals

Individual local government authority

environmental requirements are addressed at the development application stage of each new site.

Dangerous goods storage licences or storage notifications are in place where required. Where we are able to maintain storage limits below licensing levels we maintain compliance with our internal risk management programme based on NOHSC: 2017(2001) and AS/NZS 3833.

# **MANAGEMENT SYSTEMS**

# Integrated Management System

Through the re-engineering process of our health and safety management system currently under way we will be able to improve integration of OHSE systems. The need to further develop recording, incident tracking and reporting systems that are appropriate for our business has also been identified.

# Environmental Management System (EMS)

It remains our intention to implement an EMS based on AS/NZS ISO 14001 as soon as practicable.

# Safety Management System (SMS)

A new SMS titled BSAFE (Bunnings Safety Awareness For Everyone) has been formulated and will be implemented.

Standards are continually monitored through a multi-layered system of self-assessments and ongoing audit programmes, ensuring standards are maintained and exceptions remedied. Each month, minutes of safety committee meetings,

injury registers and hazard inspection checklists are reviewed and actioned by the complex manager, area manager and health and safety coordinators.

The internal safety audit standard was reviewed and improved to include a more comprehensive list of high hazard areas.

Audit results are receiving increased scrutiny from area and regional managers in an effort to quickly resolve issues and prevent recurrence of hazards. These results remain closely linked to management performance assessments and store bonus payments.

A number of new network stores received their first audit in the preceding period, identifying opportunities for improvement in the storage of poisons and pool chemicals.

The audit programme demonstrated lower levels of compliance: dangerous goods 76 per cent compliance (compared to 91 per cent last year); and occupational health and safety 80 per cent compliance (compared with 90 per cent last year). It is envisaged that with initial audits now complete at all new network locations, a firm base is in place to improve results.

Testing and maintenance levels on all essential fire and life safety systems were extensively reviewed. Many service agreements have been upgraded to increase the level of servicing and investment made in upgrading older equipment where recommended.

An external auditor is engaged to provide quarterly essential service checks at locations to ensure scheduled maintenance is taking place according to standards and any faults actioned for repair or upgrade.

# **POLICY**

We have an occupational health and safety policy titled "Success through Safety".

Our company credo, which is the statement of ethics that underpins our operation, refers to our duty to protect the environment and natural resources.

We have adopted policy statements in relation to our resource usage and waste reduction and recycling as part of our National Packaging Covenant commitment. We also have adopted a policy aimed at ensuring that timber products in our stores are derived from sustainably-managed forests. Further details can be found in our Case Study on page eight.

Our delivery of an EMS based on ISO 14001 has been delayed because of our specific focus on these issues.





# <u>CASE STUDY</u>

# Making difference...

The source of timber and other wood-containing products sold in hardware stores has become an important issue for environmentalists and for the general public.

Concerns have been raised with retailers in Europe and the United States about the origins of these products – whether the raw material has been derived from legally-operating and sustainably-managed forest operations and what the retailers know of the processing of that material into the finished products on their shelves.

In early 2002 we decided to begin developing a policy to address this issue. We commissioned consultants to advise us on the nature and scope of schemes around the world covering certification of forestry operations and we had discussions with interested parties, including our suppliers.

Our Managing Director wrote to suppliers in September 2002 advising them of our intention to develop a policy covering wood products sold in our stores and in February 2003 we posted the "Timber and Wood Products Purchasing" policy on our website — www.bunnings.com.au (click on suppliers).

In February 2003 we told suppliers they would need to supply details of the sources of all products sold to us and progress being made towards independent certification of those sources. We will set an annual improvement benchmark and progress will be reviewed every year.

Team member training sessions have been held and we look forward to the implementation of this policy over coming years to give us and our customers confidence that wood products are being obtained from well-managed and legally-operating forests.

Louise Thexeira, Risk Analysis Co-ordinator, Mark Gomm, Risk Analysis Manager, and Timber Buyer Jaimie Thurlow discuss Bunnings' timber policy.



# AIR (ATMOSPHERIC EMISSIONS)

# Dust

Wood dust is produced at most stores as a result of sawing for customers who request cut-to-length timber. Power saws are fitted with dust extractors and team members are required to wear supplied protective equipment during their operation.

# Odour

Odorous products such as manure, garden mixes and chemicals are in small consumer-sized sealed packages. Odour from these storage areas is managed through ventilation systems and close attention to housekeeping by removing or fixing broken or damaged packaging.

# Greenhouse emissions

Our emissions estimate is based on our electricity and fossil fuel usage.

Out of our total emissions of 118,052 tonnes of carbon dioxide equivalent, electricity consumption contributed 96 per cent. This estimate now

includes electricity usage for our New Zealand operations.

Ninety-eight per cent of our forklifts are now powered by LPG or batteries. As reported last year, we intend to replace the remaining diesel-powered forklifts with more environmentally-friendly units as existing plant is decommissioned.

# Noise

Environmental impact studies are submitted to local authorities as required when a warehouse development is undertaken.

In five locations, traffic management and public address system usage has been modified at individual stores to resolve concerns from neighbouring residential areas.

# Lighting

Car park and outdoor lighting is designed to all relevant Australian standards and to local authority requirements aimed at restricting "light spill" outside site boundaries.

Programmed lighting timers ensure that lighting levels are minimised out of store hours with only essential security lighting used.

# WATER

# Consumption

Each of our warehouse stores incorporates a nursery reticulation system from the main water supply that is controlled by an automated pre-set timer system. Reticulation cycles are programmed to reduce waste from evaporation.

We estimate that average annual water consumption for a warehouse store is approximately 12,000 kilolitres. Work continues to establish an accurate recording and reporting system to enable us to benchmark and improve our consumption of this precious resource. As part of this, we are in the process of investigating improvements to our accounts payable system to allow data entry from invoices of total litres as well as account value.

# Discharges to surface and ground water

We conform to all local council requirements for car park, nursery and storm water drainage.

We have procedures in place at stores to minimise the risk of accidental release of nutrient run-off or leaking chemicals into the storm water system.

# Reuse

Five sites (Mile End in South Australia, Cannington and Morley in Western Australia, Minchinbury in New South Wales and Mackay in Queensland) reuse storm water run-off from the nursery to water landscape gardens or recycle back through the irrigation system.

# WASTE

# Solid Waste

We estimate that an average warehouse produces approximately 1,400 cubic metres of landfill waste per year and recycles 625 cubic metres of cardboard packaging. Estimates of waste generated by nonwarehouse stores have not been made.

Hazardous waste from spillage cleanups or returns of faulty products not suitable for landfill disposal are collected by suppliers or disposed of by contractors. Waste disposal procedures and training are provided to locations.

# Liquid waste

Liquid waste is produced from food preparation in cafes, drainage from bin storage areas, infrequent wash downs of small hire equipment and rinsing of waterbased paint stirrers. Our waste disposal guidelines do not permit any liquid waste to be discharged to storm water. Where required by local authorities:

- wash down sumps or separation units are installed to capture hydrocarbon run-off from machinery wash downs;
- bin wash down areas are connected to sewerage systems instead of draining direct to storm water; and
- locations with a cafe have a grease trap installed to filter contaminants before drainage to sewer.

Mechanical paint mixing machines are in place at all locations, replacing the use of manual stirrers and rinsing water. A minimal amount of rinsing water is still produced by cleaning paint brushes from children's workshop activities. An analysis of this liquid shows that it is non-hazardous and it is reused in garden beds with the suspended solids filtered out and disposed of in general waste.

# Recycling

We recycle our cardboard packaging waste and we are well advanced with a rollout of plastic shrink-wrap recycling in major sites, which has a further positive effect on reducing landfill waste.

# **RESOURCE USAGE**

# Energy

Our main source of energy is electricity.

# Electricity

We estimate our total annual electricity use is 110 million kilowatt-hours. As this continues to be the main contributor to our greenhouse gas emissions, ongoing attention will be given to eco-efficiencies in this area.

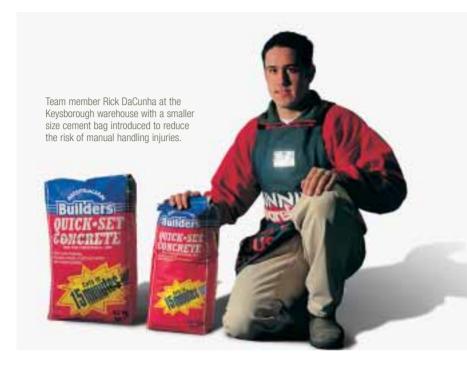
High efficiency lamps and computercontrolled light switching systems are installed at warehouse stores to provide optimum performance with the use of ambient light via translucent roof sheeting to minimise electricity consumption.

An initial review of electricity usage and charges has been completed and this highlighted opportunities to further reduce consumption by better understanding and managing the daily peak usage.

Working with our service providers we are progressing an evaluation of electricity usage to identify discrepancies between similar sized stores.



Team member Ronié D-Fleur using the plastics bailing machine at the Balcatta warehouse, Western Australia.





# **LOST TIME**

Our Lost Time Injury Frequency Rate (LTIFR) for the Australian operations was 18.3 (compared with 8.4 last year). LTIFR for WA Salvage was 15.3 compared to 7.8 last year and for the New Zealand operations was 18.3 compared to 18.6 last year (not reported).

Safety statistics are reported to senior management every month and to our board every two months.

Our safety performance continues to be of great concern and during the year a national Occupational Health and Safety manager was appointed with responsibility for conducting a strategic review of safety and driving change in this area.

Our LTIFR may not fall significantly until the effects of behavioural change and re-engineering of our SMS are obtained through the new BSAFE programme.

As part of the BSAFE programme a senior safety leadership team has been established consisting of senior executives from across the business. This forum is the driver for implementing major safety improvement projects in areas including mobile plant, high rise storage safety and traffic management.

# **WORKERS COMPENSATION**

There were 1,061 workers compensation claims reported, relating to occurrences during the year, compared with 860 last year.

Ongoing coaching with site managers is being undertaken to ensure our injury management policy is understood and followed. We have been able to manage injured team members back into the workplace and improve their rehabilitation by having managers take a more direct personal involvement in each case.

This early intervention and return to work strategy encourages direct communication between store management, the injured team member and doctors.

# HAZARD AND RISK

# **Programmes**

Workplace hazard identification and risk assessment methods are the mechanisms used to identify and control hazards throughout our business.

We simplified our risk assessment model to one based on a "stop, think, act" mentality that is readily understood and can be easily applied to daily work situations.

High-risk tasks such as operating forklifts and power saws each have a standard operating procedure developed and a coaching logbook system for operators. Other specific hazard controls include:

- dexion racking inspections to reduce the risk of collapse through damage, overloading or falling high-rise stock;
- pallet inspections to ensure soundness of pallets used by forklifts;
- monthly hazard inspection checklists of entire store carried out by safety committees; and
- high housekeeping standards to reduce customer accidents on the premises.

An external environmental consultant has been engaged to conduct preliminary assessments at four of our sites in New South Wales that have asbestos present. This includes cataloguing of asbestos content and laboratory analysis of asbestos material in three sites as a prelude to a wider assessment of remaining sites. We will negotiate with owners in respect of assessments at other sites.

# **Emergency response**

We have a Crisis Management Plan in place to address a range of potential emergency situations. Contingency plans are provided to address major accidents or security breaches.

Emergency response guides for a range of chemical spillages are in place and are accessible at every location.

Post-incident debriefing is offered to those involved in a critical incident with trauma counselling made available on site.

# Materials handling and storage

Materials handling involves the unloading of deliveries and the stacking of merchandise onto shelves or high-rise storage areas at our stores and distribution centres.

A variety of material handling devices are provided to ensure this takes place safely and efficiently. The step-through design of our check-out counters and cordless hand-held scanners at all points of sale, allow cashiers to scan heavy items in the trolley and avoid the risk of manual handling.

Ongoing reviews of the working environment are also introducing changes to systems of work, reducing the amount of manual handling involved through the use of new equipment. An example of this is a pilot project being conducted with a cement supplier where 40 kilogram bags are being replaced with 20 kilogram bags.

Opportunities for improvement to the handling of heavy carpets and sheds have also been identified. Changes in these areas will be progressed during the next year.

Traffic management between trucks, forklifts and pedestrians in our yard areas is closely monitored and a "spotter" is used where required. Allocated safe unloading areas are in place for delivery trucks. Strict forklift curfews exist where no access is permitted to the retail floor during peak customer periods.

Material Safety Data Sheets (MSDS) registers for hazardous substances used in the workplace are maintained at each store. An online database of MSDS is accessible by stores and can be printed out for customers on request.

#### Risk assessment

Seven further sites have been subjected to detailed site risk assessments by external consultants. They provided recommendations to form the basis of action plans that are being progressed under the guidance of senior management.

# **EMPLOYEE WELLBEING**

The wellbeing and personal fitness of our team members is integral to their health and safety in the workplace.

Forty-six team members attended a life skills workshop called "Investment in Excellence" where they were encouraged to bring their partners along to share in the experience.

Stress management workshops are conducted for management teams to encourage a healthy, balanced life style. Annual influenza injections are offered to every team member and we rigorously promote a non-smoking workplace.

The pilot employee wellbeing programme referred to last year was discontinued to allow us to focus on safe work practices.

We also provide a subsidised yoga programme at our national support centre in Perth where 30 minute relaxation classes are held twice per week.

We are committed to providing a positive work environment by ensuring that it is free from all forms of inappropriate discrimination.



# **STAKEHOLDERS**

Our stakeholders include team members, customers, suppliers, transport and other contractors, communities in which we operate, government agencies, nongovernment environmental organisations, and the shareholders of our parent company, Wesfarmers Limited.

Our philosophy is to, where possible, proactively seek to establish open dialogue with our stakeholder group and encourage feedback and comment as to our performance.

With the size of our store network it is a challenge for us to ensure we closely engage with all the stakeholders who take an interest in our business. We do this through a local community focus within stores and at a state and national level with major stakeholders.

Collaboration with local residents and environmental groups resulted in a successful effort to relocate a nest site of two endangered white-bellied sea eagles from a new warehouse development site in Townsville, Queensland.

# FEEDBACK/COMPLAINTS

We provide a feedback tool at every location through 'How did we do' cards promoted at the front of the store. A recording and reporting system ensures that every comment is forwarded to our executive operations team for reply if requested.

The frequent positive letters from customers, communities, government agencies and non-government organisations encourage us to keep striving to make a difference in the communities where we operate.

Store management reported dealing with 23 informal complaints from neighbouring properties on minor issues related to aesthetics, lighting, traffic, noise, dust and odour. Our survey shows that these were resolved locally by managers working with neighbours and making changes to reduce impacts to acceptable levels.





Lisa Towell (left) and Meredith Bowd from the North Paramatta warehouse in News South Wales with year eight art students from Muirfield High School. Team members provided their time and Bunnings donated materials to brighten up an area at the school.

We have been invited to take part in an industry advisory group for the development of a code of practice for the recently released Western Australian Dangerous Goods Safety Act and Regulations 2002.

We are also taking part in the Australian Standards development committee for the creation of a chain of custody standard to support the new Australian Forestry Standard.

# LIAISON WITH AUTHORITIES

We remain proactive in engaging and establishing open working relationships with authorities that regulate our business and the non-government organisations who take interest in our operations.

Good working relationships have continued during the year with state environmental protection and waste management agencies.

Our health and safety management team have held seven roundtable discussions with WorkCover Victoria to create a better understanding of issues that arise.

We have received letters of appreciation from the Western Australian, Victorian and Queensland environmental protection agencies for our involvement in joint waste reduction initiatives and supporting the National Packaging Covenant. Greenpeace has also made public comment in support of our leadership role in developing our sustainable wood purchasing policy.

# COMMUNICATION

A wide variety of internal communication tools are used to ensure that safety and the environment remain front-of-mind workplace issues.

Safety and community support features in comments by our general managers in "Bunnings Banter".

To support our environmental awareness, a regular newsletter is sent to stores to brief them on the initiatives being undertaken.

Our Intranet has been further developed and improvement in the network access at stores has made it more readily available.

Updated and more comprehensive information on the environment and dangerous goods storage and handling is posted on the Intranet.

The "Bunnings and the Environment" page displays a statement on our commitment to the environment together with store environmental guidelines to reduce impact. An innovation feedback mailbox provides team members the

opportunity to share their ideas with an incentive reward offered.

On our website (www.bunnings.com.au) information on our sustainable wood procurement policy can be viewed together with an information pack to guide our suppliers towards achieving certification for their timber and wood products.

# **COMMUNITY SUPPORT**

We demonstrate our strong commitment to the communities in which we operate through a National Community Involvement Strategy focusing on local, state and national organisations.

We support many community groups active in health, youth development, the environment, education and community welfare.

During the year, we helped raise funds and contributed almost \$2.65 million to various charities and community groups throughout Australia.

National programmes of which we are major sponsors include the Juvenile Diabetes Research Foundation "Walk for a Cure", Bluey Day (Head Shave for Childhood Cancer Research) and Anglicare.

At a state level we also take on major sponsorships such as the Clean Beach Challenge in Queensland, Bunnings Fathers' Day Appeal for the Alfred Hospital in Victoria, the Red Shield Appeal in Western Australia and various children's hospital appeals.

The team at every warehouse store supports their local community in many ways, including:

- providing expert advice or hands-on support to assist community groups with Do-It-Yourself (DIY) projects;
- acting as collection points for various charities;
- conducting fundraising events for charities and community groups;
- personally taking part in charitable events; and
- participating in coordinated blood donations for the Red Cross.

We receive hundreds of letters from community groups asking for our support with various community and environmental projects. Some of the projects where our team members donated their time and skills included:

- running workshops for children during Environment Week;
- painting wards and treatment rooms at children's hospitals;
- building flower beds and vegetable gardens at primary schools;
- doing "makeovers" of community facilities; and
- performing "back-yard blitzes" for charity homes for auction.

At warehouse stores free "how to" weekend workshops are offered to adults and children. In addition, specially coordinated "Ladies Nights" are conducted to introduce women to the world of DIY.

Children's workshops are also conducted at schools, community centres and major community events.

We will continue to devote our energy and expertise to identifying ways of adding value to the communities in which we operate and reducing our impact on the environment.

Priorities for the future

Improve safety performance by at least halving our LTIFR each year with zero LTIs our ultimate aim.

Further develop safety leadership culture and safety education within senior executive and management teams.

Deliver re-engineered SMS based on AS/NZS 4801 across the business.

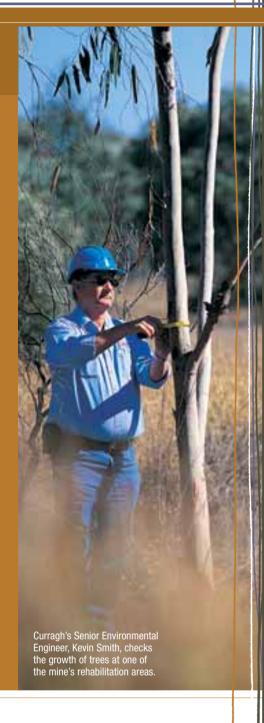
Continue developing EMS based on ISO 14001.

Progress sustainable timber and wood policy with our suppliers.

Continue to improve the eco-efficiency of our operations.



Janice Murray, Activity Organiser from the Joondalup Warehouse in Western Australia, shows Kate Johns of Currambine Primary School how to build a tool box as part of the Bunnings programme of school workshops.



# Curragh

We operate the Curragh open cut mine near Blackwater, 200 kilometres west of Rockhampton in Queensland's Bowen Basin which produces high quality coking coal exported to steelmakers and steaming coal supplied for domestic power generation. Sales of 6.2 million tonnes were in line with the previous year. The acquisition of the Curragh North deposit was announced during the year and this will extend the life of our operations to 2025. We employ about 240 people.

Our three main environmental issues are mine site rehabilitation, dust control and water management.

We rehabilitated 60 hectares during the year as required by our Environmental Authority conditions.

Despite severe drought conditions, monitoring showed we did not exceed our prescribed limits for airborne dust. An additional five monitoring sites were established.

Our purchased water volumes increased on last year due to greater amounts of coal being processed and the continuing drought. All available water was reused.

Our two main safety issues are workplace injuries and managing the hazards inherent in the operations of a major mining site.

We recorded only one Lost Time Injury during the year (the same as last year). We believe that healthy employees suffer fewer injuries and we commenced a "Healthy Bodies" programme designed to encourage healthy lifestyle choices.

During the year we focused on our Crisis Management Plan and conducted a successful desktop exercise and a full mock emergency.



# LOST TIME INJURY FREQUENCY RATE\*



# NUMBER OF WORKERS COMPENSATION CLAIMS



# OUTCOMES 2002 REPORT PRIORITIES Re-powering of all haulers with more energy efficient motors > Four of our five units have been re-powered and are consuming (reduction of 10 per cent fuel use by these units). ten per cent less fuel per hour. Not achieved due to increased equipment use by contractors. Ensure compliance with our obligations under our Environmental One unauthorised discharge of water off our mining lease. Authority to meet the high standards expected by the community A Cultural Heritage Investigation and Management Agreement for of the mining lease areas. now be developed. > We have revised our plan and a full Environmental Impact Statement is being prepared for the development of the northern area. Community consultation and participation to involve stakeholders During the year 40 formal meetings were held with numerous in our activities. stakeholders and 211 visitors toured the mine site in organised tours. Records of these are documented in the mine site community consultation database. A successful desktop exercise and a full mock emergency were The General Manager addressed employees on matters including continually review and monitor the effectiveness of our Safety safety on a regular basis. Review groups discussed work procedures and made recommendations for change. Ongoing participation in Minerals Council of Australia MINEX award evaluation process of various mining operations assisted in Healthy Bodies programme implemented and monthly "Healthwise" and their families. Promote health and safety awareness within the community. Feasibility study underway for a joint venture with another mining company for the establishment of a gym and physiotherapist facility



# **TRAINING**

# Environmental

The environmental awareness training is integrated in our site induction programme for contractors and permanent employees.

# Health

A requirement of our Safety Management System (SMS) is that managers and supervisors are trained in the recognition and management of fatigue. Fatigue and psychological impairment training for managers and supervisors was conducted in November 2002. The 74 attendees were instructed on the critical role they play in the effective management of fatigue-related risk on site.

Our SMS requires employees to attend annual fitness for duty training. The training this year focused on personal fatigue management. It was conducted in December 2002 and 365 people attended. Because of the timing of the training, special mention was also made of driver fatigue on the open road during the holiday season.

# Safety

A requirement of our hazard management plan is that employees are trained in the principal hazards on site as identified by our SMS. The training programme includes an assessment to ensure comprehension. Since July 2002, 115 of our employees and permanent contractors have participated in this training. Follow up training of mine personnel will be conducted during a five-year refresher training programme which is due for implementation before November 2003.

for mine workers and the general community.

Courses covering risk management, accident investigation and communications were conducted for new supervisory personnel. Fifty-one of our employees attended this training during the year.

Personnel who are required to work in confined spaces must have a current qualification. Confined space training courses and re-certification courses are conducted during the year as required. Re-certification is required every 18 months.

Training was conducted for managers, senior supervisors and health and safety committee representatives in root cause analysis designed to help efficiently and successfully analyse incidents and accidents by identifying causal factors and developing effective improvements to prevent recurrence. Twenty-four of our employees attended this training during the year.

An occupational first aid course was conducted in December 2002 for seven mine rescue members.

Twenty-five employees completed a senior first aid course during the year.

# **Emergency**

To refine our Crisis Management Plan, a development plan was implemented to involve our stakeholders. A communication management firm was contracted to complete the project which involved operations familiarisation, review of existing plans and identification of potential crisis situations, updating our Crisis Management Manual and training of the crisis management team in aspects of the manual and dealing with the media. The next step was to conduct a desktop scenario to test the crisis management team's ability to communicate and deal with media interviews. A full debrief was held and opportunities for improvement were identified. A full mock emergency

exercise was then conducted to test our on-site emergency response and crisis management procedures. It also included a full response from external agencies, for example, the Queensland Police and Ambulance Service, local hospital and the Department of Natural Resources and Mines. The exercise also tested the communication process between our Blackwater site, our Brisbane office and Wesfarmers Energy and Wesfarmers Limited in Perth. A debrief and full report was received. A joint discussion paper was presented by our consultants and us to the Coal Mining Conference in Townsville in August 2003 detailing our crisis management development process.

The members of the fire rescue team trained during the year to ensure competency in fire and rescue skills.

A six member team competed in the Australian National Road Accident Rescue Challenge at Toowoomba, Queensland, in May 2003 with the team placing first in the rapid extrication event and winning the best technical team award. Our team placed second overall.

A seven member mines rescue competition team competed in the Queensland Open Cut Mines Rescue Competition in October 2002. The competition was attended by the major coal mines in Queensland and a representative team from New South Wales. Our team received the runners-up trophy and won the road accident rescue and height rescue exercises.



# Environmental

We maintained our Queensland Environmental Protection Agency (EPA) performance category two status. Last year we incorrectly reported that we had a category one status.

Our Environmental Management Overview Strategy (EMOS) and Plan of Operations (PoO) were rewritten to comply with amended legislation. From these new documents, the Environmental Authority conditions were negotiated with the EPA.

In July 2002, we submitted a new EMOS prepared in accordance with the EPA guidelines. The acceptance of the EMOS by the EPA was followed by a rewrite of our PoO. The PoO was accepted by the EPA in April 2003. Based on the EMOS and the PoO, our Environmental Authority conditions were negotiated. There was one breach of these conditions during the year when a pipeline burst allowing one megalitre of water to discharge from the mining lease into a dry gully.

# National Pollutant Inventory (NPI)

Our NPI return was completed and filed with the EPA in August 2002. There was an increase in our exhaust emissions to air due to increased hours of operation and further expansion of our contractor pre-strip fleet.

Detailed information is available at: www.npi.gov.au.

# Health

Although the statutory requirement is for tests at least every five years, our employees and permanent contractors are required to have a Coal Board Medical (CBM) at least every three years.

Each new employee or permanent contractor who does not have a current CBM is required to undertake the assessment. An annual health review is also a requirement for our employees and permanent contractors.

Non-permanent contractors are required to have a health assessment as part of the induction process.

# Safety

An internal audit of the Safety Management System (SMS) was conducted in December 2002. The 31 elements of our SMS are audited against performance criteria. The SMS internal audits are required to be conducted every two years. A total of 97 corrective action



requests were raised as a result of the audit and are being actioned.

External audits of the SMS and the 84 Standard Operating Procedures (SOPs) are conducted every five years with an audit due in 2006.

We measure compliance with our alcohol policy through testing of all people entering the mine site on a particular shift. This shift is randomly nominated by the General Manager. Personnel attending site induction are also breathtested. A total of 21,468 tests were conducted with 97 positive tests.

Everyone attending site induction and all those completing CBMs are drug-tested. Random drug testing is carried out via a computer-generated list. Ten tests per nominated shift are conducted with the shifts being selected by the General Manager. The total number of tests carried out during the year at site inductions was 1,020, with eight positive tests recorded. A total of 56 random drug tests were conducted and three were positive.

Those people returning positive results to either alcohol or drugs screening were subject to disciplinary procedures which range from counselling to, ultimately, dismissal as per our SMS.

Special projects, such as shutdowns, may have additional alcohol and drug screening.

# Licensing and approvals

All environmental approvals that are required to operate the mine are held and are current. These are administered by the Environmental Protection Agency and the Department of Natural Resources and Mines.

# **MANAGEMENT SYSTEMS**

# Environmental Management System (EMS)

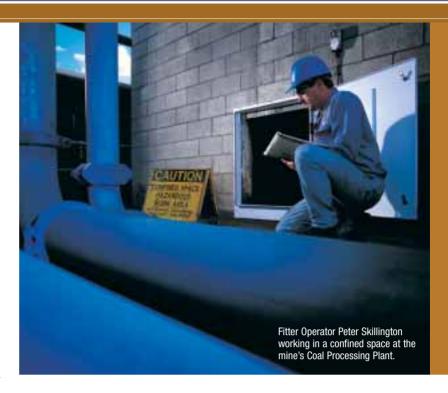
Approval of our EMS submitted to the EPA in November 2000 has been delayed due to changes in relevant legislation.

# Safety Management System (SMS)

The SMS and SOPs have had some changes made as a result of the internal audit conducted in December 2002. The SMS and SOPs are "living" documents – that is, changes are made as issues are identified by audit procedures and employee consultative and risk assessment processes.

# Other/internal management systems

The SiteSafe database allows immediate recording of incident and injury data.



The database is accessed through the Intranet where standard forms are completed on-line by the person recording the incident or, in the case of an injury, by the site paramedic. Relevant information for each incident and accident is recorded and immediately stored in the database.

Statistical information can be retrieved from the database to indicate trends and problem areas.

We entered the Mineral Council of Australia's 2002 MINEX awards but unfortunately did not achieve award status. The MINEX awards process provided excellent feedback which will allow us to make improvements. Our senior health and safety coordinator is a member of the 2003 MINEX awards evaluation team. Our experience in this evaluation process will assist us in our ongoing improvement and benchmarking process.

Our WorkCover-accredited injury and illness rehabilitation policy and rehabilitation programme are communicated to new employees at induction. Assistance is provided to employees who have either work or non-work related injuries or illnesses.

# **POLICY**

Our Environmental Policy (set out on page 21) is displayed prominently in relevant places. The policy is reviewed each year.

Our Health and Safety Policy is distributed to personnel, including contractors, at induction and is displayed in prominent places. The policy is reviewed in June each year.

Site Management Accountant Kathleen O'Dowd being breath tested before entering the mine site as part of Curragh's random test programme to ensure compliance with its alcohol policy.



FIGURE 1: CO2-e EMISSIONS (TONNES)

	02/03
<ul><li>Diesel</li></ul>	60,624
Electricity	189,377
<ul><li>Explosives</li></ul>	3,390
<ul><li>Fugitive</li></ul>	235,047

FIGURE 2: WATER USAGE (MEGALITRES)

Allocation 1,500	2,200	3,200
Recycled 2,193	3,263	3,313
Purchased 1,637	2,408	3,026
00/01	01/02	02/03

# Environmental

# AIR (ATMOSPHERIC EMISSIONS)

#### Dust

Our dust monitoring results show that we did not exceed the levels prescribed in the Environmental Protection Policy (Air). The region experienced severe drought conditions and severe dust storms during the year. We did receive a request from the EPA to supply all dust data for the past five years as they had a complaint from a person concerned with dust migrating from our mining lease. The EPA did not pursue the matter after they reviewed our data. Around this time, severe wind conditions and a dust storm blanketed the whole of the central Queensland region. An extra five dust monitoring sites along our boundaries down-wind of our operations were established during the year to record atmospheric dust levels in those areas and results were below the prescribed levels.

# Greenhouse emissions

A total of 488,439 tonnes of greenhouse gases were emitted from the mine site operations including 235,047 tonnes of fugitive emissions. Diesel-powered equipment on site contributed 23.92 per cent of the emissions, electricity 74.74 per cent and blasting 1.34 per cent (see Figure 1).

Four of our five coal hauler units have been re-powered and are consuming ten per cent less fuel per hour, resulting in a greenhouse gas emission reduction of approximately 677 tonnes this year. The remaining coal hauler will be re-powered next year and we expect to further reduce our greenhouse gas emissions.

Last year we incorrectly calculated and reported our greenhouse gas emissions as 52,785 tonnes. The actual number, including an estimated 172,200 tonnes of fugitive emissions from mining operations, was about 384,000 tonnes of carbon dioxide equivalent.

# Noise

Blast noise levels and ground vibration caused by overburden blasting did not exceed EPA limits or our Environmental Authority conditions. All monitoring records are retained in the environmental database.

# WATER

# Water consumption

The Blackwater area is currently experiencing a severe drought. Using data based on 80 years of recordings from the Bureau of Meteorology, we have had only 45 per cent of the average annual rainfall in each of the past two calendar years.

Our purchased water volume increased on last year's figure due to the increased amount of coal being put through the coal preparation plant and continuing drought conditions (see Figure 2).

# Surface and groundwater

We monitor water flows in Blackwater Creek both upstream and downstream of our operations whenever there is a flow in the creek.

No water is drawn from groundwater bores.



Kevin Smith monitoring water quality at the Mackenzie River, which borders the new Curragh North deposit.

# Discharges to surface and groundwater

There were no discharges to groundwater. We experienced an unauthorised water discharge from the mine site of approximately one megalitre of saline water to a dry creek during the month of June 2003.

#### Reuse

Drought conditions have impacted on our mine site storage dams with the majority of dams being dry for the whole year. Notwithstanding this, recycling of water was a priority and all available water in any of the mine site retention dams was pumped back to the coal preparation plant for reuse.

# WASTE

# Solid waste

We continued to recycle our hydrocarbon solid waste from the draglines to a registered facility. Recycled solid waste totalled 91 per cent.

# Liquid waste

All liquid waste is reused or recycled.

# Recycling

Engine coolant continues to be re-filtered and reused in the mobile equipment workshop when components are changed on major equipment. Recovery of scrap steel from the mine site totalled 777 tonnes. We continue to reuse hydrocarbon waste as a lubricant at the coal preparation plant and on dragline dump ropes (see Figures 6 and 7). Reuse of waste oil as a lubricant at the coal preparation plant decreased 37 per cent on last year (see Figure 5). In addition to this, a further 202,000 litres was taken off-site for recycling (see Figure 4).

The general mine site waste continues to be recycled at a registered facility. General waste recycling figures indicate that we are recycling around 50 per cent of our waste. This percentage is similar to last year's (see Figure 3). All regulated waste (as defined by the Queensland Environmental Protection Act) is taken off-site to licensed facilities.

FIGURE 3: GENERAL WASTE VOLUMES (CUBIC METRES)

00/01	01/02	02/03
• Recycled 878.5	1,118	1,139.2
• General 772	1,167	1,078.9

FIGURE 4: WASTE OIL EXPORTED OFF-SITE (LITRES)

0	0/01	01/02	02/03
Waste oil			
	0	28,000	202,000
			•
		•	

FIGURE 5: VOLUMES OF WASTE OIL REUSED ONSITE (LITRES)



# FIGURE 6: RECOVERED HYDROCARBONS FROM DRAGLINES (KILOGRAMS)

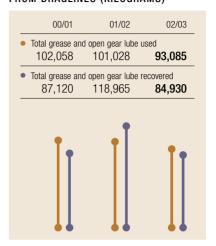
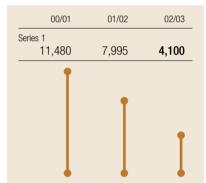


FIGURE 7: REWORKED DUMP ROPE LUBE VOLUMES (KILOGRAMS)





# LAND

# Flora and fauna

Flora studies have been undertaken on selected sections of the rehabilitated areas for the study of species emergence. This study was initiated by us and undertaken by the University of Queensland's Centre for Mined Land Rehabilitation. It will continue over a period of four years.

#### Contamination

Contaminated sites continue to be managed in accordance with the Environmental Protection Act and this includes regular monitoring. Our bore hole monitoring results indicate that there is no increase of environmental harm from the sites. Our contaminated sites include old waste dumps covered by spoil. The monitoring included ground water quality down stream of these sites and results are compared against previous results and the baseline ground water quality.

Environmental management plans are in place for each of our notifiable activities so that further possible contamination is minimised.

# Rehabilitation

Sixty hectares of rehabilitation was completed during the year as required by our Environmental Authority conditions. Seeding of last year's rehabilitated area was completed after a significant rain event that put enough moisture into the ground, but no follow up rain occurred and seed germination was minimal. Rehabilitation of disturbed areas commenced in 1988 and to date 800 hectares have been rehabilitated to a care and maintenance level.

# **RESOURCE USE**

# Energy

Our total energy consumption was 668 gigajoules.

#### Fuel

The re-powering of our coal haulage units continued with only one of our five units still to be re-powered. Fuel use has been recorded and shows a reduction of ten per cent for the re-powered units. Diesel fuel use increased from 17,135 kilolitres to 20,962 kilolitres due to higher levels of production. Our contractor truck and shovel overburden fleet increased production by removing an extra five million cubic metres of overburden than the previous year.

# Electricity

Total electricity consumption was 185,664 MwH, up from 166,956 MwH last year.

# Safety and health

# **LOST TIME**

Our Lost Time Injury Frequency Rate (LTIFR) was 1.0 (the same as last year) and, during the year, there was one LTI. Our Average Time Lost Rate, which provides a measure of the severity of such injuries, was 21 (compared with 29 last year). These statistics include permanent contractor hours and injuries.

Safety statistics are reported to senior management monthly and to our board every two months.

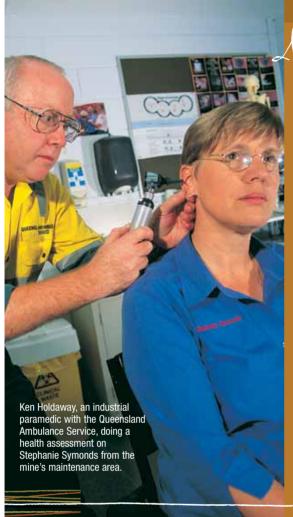
# **ENVIRONMENTAL POLICY**

Curragh Queensland Mining Pty Ltd will manage its operation so that the environmental impact on the Curragh mining leases and surrounding areas is minimised. In order to achieve this goal we will:

- Comply with relevant Environmental Acts, Regulations and Standards;
- Ensure that best practice technology is used to develop systems within our Environmental Management Overview Strategy (EMOS) and Plan of Operations (PoO);
- Provide the necessary resources to allow us to meet our EMOS and PoO commitments;
- Educate our workforce in all relevant environmental matters to achieve our commitments;
- Select contractors who have demonstrated capability in working to our standards:
- Identify areas with potential for non-compliance and minimise the risk through sound management practices;
- Maintain an 'open book' approach in our documentation of environmental matters and self-report any instances of non-compliance to the relevant authority;
- Regularly communicate with our neighbours to inform them about the mine's operation; and
- Continually improve our environmental management performance in order to reach a Category 1 compliance rating.

I require all employees, contractors and visitors to comply with the relevant procedures and practices set out under this policy.

Murray Bailey General Manager April 2002



Making difference...

One of our Priorities for the Future last year was to promote further education of health and fitness amongst our employees and their families.

In March 2003 we introduced the "Healthy Bodies" programme. This health and fitness management programme provides employees with the knowledge, support and encouragement to commit to improving their health through improved eating, exercise and positive lifestyle changes.

After an introduction session, employees were asked to nominate to attend the programme, which was conducted during working hours.

The programme consisted of six one-hour weekly sessions covering best food choices, exercise strategies, fat, fibre and alcohol, stress and fatigue management.

On average, 69 people attended over the six-week period of the "Healthy Bodies" initiative.

Assessments using the most up-to-date technology to assess weight, body fat and muscle mass were performed in the first and sixth weeks, as were waist measurement and blood pressure checks.

At the conclusion of the six weeks, positive results had been achieved by many of the participants. Medical checks were also encouraged with several medical conditions being highlighted.

Follow up sessions will be conducted at week 12 and week 18 and a fortnightly newsletter is being compiled to assist in maintaining focus.

Participants were presented with a pedometer and logbook as motivational tools.

We will be holding additional sessions over the next 12 months to check the results of the programme and to assess any other health and fitness benefits. The assessment will be done jointly with our consultant and our health and safety committee.

# **WORKERS COMPENSATION**

The LTI resulted in a workers compensation claim and there were other claims relating to medical treatment injuries. There were a total of four workers compensation claims reported, relating to occurrences during the year, compared with five last year. We are pleased that our claim numbers continue to reduce.

# HAZARD AND RISK

# Programmes

We have a method by which hazards are identified and assessed for risk and appropriate control mechanisms are put in place to ensure the health and safety of persons at the mine. Appropriate training is provided so that employees have the necessary skills and knowledge to identify hazards and conduct risk assessments.

# **Emergency response**

As outlined earlier in this report, a full mock emergency exercise was conducted to test our on-site emergency response

and crisis management procedures. The debrief and subsequent report outlined areas for improvement which will be incorporated into both the Emergency Response Procedure and Crisis Management Plan.

Members of the Curragh mine rescue team competing at the Australian National Road Accident Rescue Challenge at Toowoomba, Queensland.





# Materials handling and storage

The computer database used to register chemicals is Chem Alert. Our employees and contractors are advised about the system at induction. The database is accessible via our Intranet and is updated when chemicals are either approved for use on site or removed from site.

A dangerous goods handling course was conducted for warehouse personnel to reinforce their knowledge of obligations for the handling, storage and transport of such items.

# Risk assessment

A new risk assessment form has been developed and is available across the mine site. The form is designed for ease of use and is used where necessary to do a risk assessment on a task, or to perform risk assessments on SOPs. It accords with AS 4360.

# Employee wellbeing

A "Healthy Bodies" programme has been introduced to promote a healthy lifestyle. This programme is discussed further in our Case Study on page 21.

An influenza inoculation programme was again offered to employees with a total of 91 employees having the injections. This programme was carried out by our nominated medical adviser who also visited our site during the year to consult with our employees and management.

Occupational therapy services to the mine have increased from twice a month to an average of four times. The occupational therapist reviews both work and non-work related sprains and strains as well as assessing workstations and tasks.



# **STAKEHOLDERS**

Our stakeholders include our employees, contractors, visitors, the local Blackwater community, various government agencies and the shareholders of our parent company, Wesfarmers Limited.

We successfully negotiated with the indigenous traditional owners a Cultural Heritage Investigation Management Agreement (CHIMA). This CHIMA was developed to cover all of our northern development areas. A full Cultural Heritage Management Plan will be developed under the CHIMA.

A community consultation plan was developed for the site and this forms part of our EMOS. Numerous consultation meetings with stakeholders were undertaken.

Our continuation of site tours for interested school groups and universities resulted in 211 visitors being escorted through our mine during the year. We met with all adjoining landholders to keep them informed of site operations and future expansion plans.

# FEEDBACK/COMPLAINTS

No complaints were received at the mine site. The EPA received a complaint which is outlined under the "Dust" heading on page 18.

# LIAISON WITH AUTHORITIES

Our site management personnel continue to liaise with the relevant authorities which include the EPA and the Department of Natural Resources and Mines for mine site operations. Presentations of our mine site operations were made to industry representatives at EPA workshops.

# COMMUNICATION

Our Intranet site can be used by employees to access the SMS and SOPs. Job safety analysis, work instructions and work procedures will be added upon completion. Safety forms taken from the SMS have



also been added to the Intranet for ease of access.

Information for the "Healthy Bodies" programme is accessible on our Intranet site to assist in maintaining employee focus. Employees can also access the "Healthy Bodies" website to request information directly from the consultants.

# Newsletters and reports

Monthly health and lifestyle brochures are sent to employees' homes.

Our milestones, statistics and relevant information are passed on to employees by the General Manager at safety meetings and on notice boards.

Participants in the "Healthy Bodies" programme now receive a newsletter to reinforce the virtues of a healthy lifestyle

# LIAISON GROUPS

We continue to be a corporate member of the Fitzroy Basin Association and the Central Queensland Mine Rehabilitation Group.

# **COMMUNITY SUPPORT**

During the year we continued to support over 45 community organisations and events. These included health, sporting, education, community and cultural events.

# RESEARCH

We continue to support several industry researches through the Australian Coal Association Research Program. We have participated in the erosion rehabilitation project for the past 10 years and we are committed to continuing this project with ongoing financial and in-kind support.

# Priorities for the future

Implementation of an Environmental Management System.

Achieve zero LTIs.

Upgrade our induction training process for new employees, contractors and visitors.

Continue consulting with our employees to continually review and monitor the effectiveness of our Safety Management System.

Benchmark our Safety Management System with other industry leaders with the view to continually improving our system.

Review our contractor management procedures and develop partnerships.

Promote health and safety awareness to our employees and the community.

Further development of our Cultural Heritage Management Plan for all our operations.

Further development of our plans to integrate the northern resources into our existing operations.

Upgrade our environmental database.





# Premier Coal

We mine coal at the Premier open cut in Collie, about 200 kilometres south of Perth in Western Australia. During the year we sold about 3.3 million tonnes of low sulphur, low ash steaming coal, primarily to major power generating stations. We also supply coal to a variety of industrial and agricultural applications. We employ about 280 people engaged in overburden removal, coal production, plant maintenance and site rehabilitation. (This report does not cover the activities of the Cardinal Contractors earthmoving business which was sold in November 2003).

Our three main environmental issues are rehabilitation of disturbed land, greenhouse gas emissions and ensuring compliance with our legal obligations.

We rehabilitated 186.8 hectares of land this year and only 21.3 hectares was cleared.

Overall net greenhouse gas emissions are down 14.2 per cent this year, but they are up on a per unit of production basis.

We continued implementing our EMS with additional training and auditing of procedures leading to ISO14001 certification this year.

Our two main safety issues are workplace accidents and Fitness for Work.

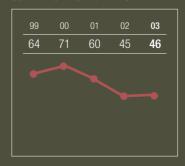
A very big improvement in our safety performance was a highlight with no Lost Time Injuries (LTI) this year, contributing to a record 419 days without an LTI to the end of the year. This has bettered our previous record of 177 LTI-free days. The number of lost time injuries dropped from four last year to zero and our Lost Time Injury Frequency Rate (LTIFR) fell from 6.4 last year to zero.

Our safety systems were highly rated in Department of Industry and Resources audits.

# LOST TIME INJURY FREQUENCY RATE\*



# NUMBER OF WORKERS COMPENSATION CLAIMS



# 2002 REPORT PRIORITIES

# OUTCOMES

<i>]</i>	
Full environmental compliance.	We fully complied with licence conditions and management plans covering blasting, water, dust, forest management, clearing and rehabilitation except for one blast (in 547) outside of compliance. Compliance with noise requirements remains difficult to quantify.
Annual rehabilitation of at least the equivalent area of land we clear for mining.	We rehabilitated 186.8 hectares and cleared 21.3 hectares.
To provide value-added rehabilitation and mine closure outcomes.	We continued to work with the community and government on the establishment of Western 5B and Western 2 areas as recreation complexes.
Ensure focus on any community issues or concerns with our operations.	We established a Community Consultation Group to focus on community issues and improve communication.
To complete ISO14001 certification of our EMS.	We achieved ISO 14001 certification of our Environmental Management System (EMS).
Further reduction in greenhouse gas emissions.	Net greenhouse gas emissions were down 14.2 per cent, but on a per unit production basis were up 5.8 per cent to 2.74kg of carbon dioxide equivalent per bank cubic metre equivalent of production.
A target of zero accidents.	We had zero Lost Time Injuries (LTIs), 35 medical treatment injuries and 62 first aid cases.
Review our safety standards and auditing.	A partial review of our safety standards and auditing was conducted.
Implement a Fitness for Work policy.	Implementation of the proposed Fitness for Work policy is progressing through a consultative group comprising management, employee and union representatives.



# **TRAINING**

# **Environmental**

Our employees have undergone a fivehour environmental awareness training programme and have done other job-specific environmental training.

Other environmental training is conducted at induction of new employees, visitors and contractors.

Further training in procedures was conducted during the year and a schedule established to continue this process.

# Health

Managing employee health issues is done through health promotion and injury management programmes. Due to our aged workforce profile, we target strain injury prevention by providing education and support in the prevention of muscoskeletal conditions.

Training on strain injury prevention was conducted for apprentices in the maintenance department including various topics such as spine physiology, care of the musco-skeletal system and correct manual handling techniques. This training included assessment of manual handling risks and implementing controls.

We continued to run a monthly physiotherapy clinic as part of our injury management programme. This programme is aimed at musco-skeletal injuries incurred at work and off-site, ensuring these injuries are not aggravated by current activity. Assistance such as task modification and strengthening exercises are advised.

First aid training is available to all our employees, aimed at ensuring coverage of personnel with first aid knowledge who can apply first-response techniques in an emergency. St John Ambulance workplace first aid training courses are conducted as needed. Twenty-one employees (seven per cent of the total workforce) have completed these courses.

We participated in "Healthy Heart Week" with 35 employees (11.6 per cent of the

total workforce) volunteering for healthy heart lifestyle assessment. The week included fitness and nutrition promotion and a lunch break quiz that raised money for National Heart Foundation research into heart disease.

Free influenza shots were offered to employees. Fifty-three people (18 per cent of the workforce) had the injections with benefits for both the individuals involved and our operations.

# Safety

In May 2003 we achieved a record of one year without a Lost Time Injury. This is a significant milestone and has continued to the end of the year. The success has been shared and communicated amongst our employees and the local community. Our performance is significant also when compared to industry standards. The coal industry has a Lost Time Injury Frequency Rate in Western Australia of 17.4 and a national rate of 16 (based on figures published for the 2002 year).

We commenced a change towards standardisation of our clothing to include

reflective panels for safety at night and long sleeves and trousers to reduce the incidence of skin damage from excessive sun exposure. All employees will be required to wear the new clothing which is being phased in for completion in the forthcoming year.

Our safety and health representatives attended a Department of Industry and Resources (DoIR) "Worksafe 2003" conference on the future directions the government is taking regarding occupational safety and health, particularly rationalisation to one overarching piece of legislation to include mining and general industry.

We submitted an application for our safety management systems to be peer reviewed under the Minerals Council of Australia's Mining Safety Excellence Awards MINEX 2002. A report was received in October 2002 and has been communicated back to the workforce. We did not receive an award from our submission, but many positive aspects were noted, including communication with employees and the training/health programmes implemented. Some opportunities for improvement were suggested in the areas of system development and visible leadership.

Wesfarmers Limited 2003 REPORT

Our safety and health representatives attended a workshop at Bunbury in Western Australia conducted by the Chamber of Minerals and Energy specifically aimed at improving the skills and networking of the south-west region's safety and health representatives. Feedback from the workshop was excellent and another is planned next year.

Our Fitness for Work implementation is continuing in consultation with our employees and union representatives. We have commenced education on fatigue, lifestyle and shiftwork, as well as alcohol and other drugs. An agreed policy and programme commencement is expected towards the end of calendar 2003. Fatigue and our ageing workforce has prompted an increase in health promotion activities.

# **Emergency**

Mine rescue training was conducted on 10 occasions involving rescue from height and depth, fire fighting, hazardous chemical response, first aid, vehicle extrication and confined space rescue.

A monthly mine rescue training regime was conducted to ensure skills were maintained. A training template was developed which included audits of all our emergency equipment and our readiness.

A programme of emergency skills training

truck with three people "injured". On-site and local emergency preparedness and response were tested. Overall the practice went to plan with a few minor items for improvement raised in the post-incident briefings.

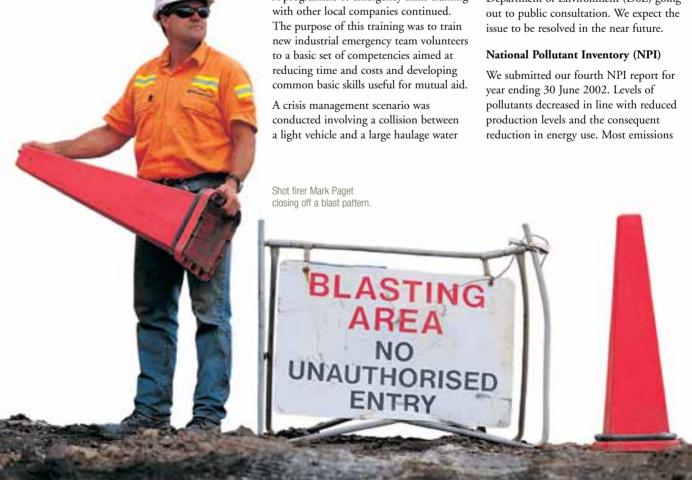
We have improved our procedures for calling an ambulance with a clear instruction being issued to err on the side of caution and call for one if it may be needed, particularly for any medical condition that could worsen if the patient were transported to medical aid by other means.

# COMPLIANCE

#### Environmental

We again fully complied with licence conditions and management plans covering water, dust, forest management, clearing and rehabilitation except for one blast, out of a total of 547, going beyond the limit.

The management of noise remained a key focus area with compliance still difficult to quantify due to the nature of noise and the numerous other sources within the coal-mining basin. The application to modify the existing noise allowance progressed significantly with the Department of Environment (DoE) going



were either from the use of diesel or dust generated from wind, vehicle and overburden movement, coal processing and blasting.

Detailed information is available at: www.npi.gov.au.

# Health

In accordance with regulatory requirements, we continued our Mine Workers Health Surveillance programme and renewed certification of hearing testing equipment.

All existing and new mine rescue team members were medically and physically assessed and considered fit to continue as team members to the requirements of the DoIR.

An inspector from the Western Australian Health Department attended the site to verify our compliance with the conditions of our poisons licence which is required to issue medications. No issues were raised, as we hold only minor medications for first aid treatment and all dispensary protocols were found to be in order.

#### Safety

We maintain communication and consultation through 10 elected safety and health representatives and the occupational health and safety committee.

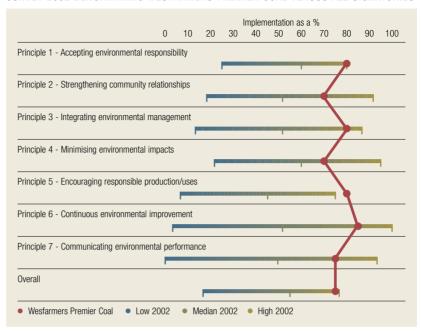
We operate under the Mines Safety and Inspection Act 1994, and the Mines Safety and Inspection Regulations 1995.

We were audited on three occasions by inspectors from the DoIR Mining Operations Divisions. The audit results were "Electrical safety management" (84 per cent); "Emergency management plan" (85 per cent); "Explosives storage" (90 per cent); and "Explosives usage" (95 per cent). We commissioned an engineering consultant to review our conformance to AS 3007.5-1987 "Electrical installations - Surface mines and associated processing plant -Operating requirements". Our emergency management plan has been reviewed and improved to incorporate our crisis management procedures. Explosives storage and usage issues have been improved with revised safe working procedures and recent training of employees by our explosives supplier.

# Licensing and approvals

Under the Explosives and Dangerous Goods Act 1961 we maintain a single licence for our storage of hazardous materials and dangerous goods. We have a comprehensive emergency management plan as required by this licence.

FIGURE 1: AUSTRALIAN MINERALS INDUSTRY CODE PRINCIPLES IMPLEMENTATION SURVEY 2002 BENCHMAKING WESFARMERS PREMIER COAL VERSUS ALL SIGNATORIES



We maintain a compliance register of statutory approvals, appointments and licences for specific functions under various legislation covering our operations.

# **MANAGEMENT SYSTEMS**

# Environmental Management System (EMS)

We have a certified ISO14001-standard EMS which is designed to identify and manage any potential risks through procedures for key work activities and monitoring requirements.

The EMS covers our government-approved environmental management programme and extensive legislative and licence conditions. During the year, training was conducted on key procedures and a schedule for ongoing training was devised. In addition, auditing of environmental procedures was undertaken and an audit schedule was devised for procedures that are only used seasonally.

We are committed to continued integration of environmental management with all business and operating management systems. With this, and also simplification in mind, the EMS will undergo a detailed upgrade in the coming year.

As part of our ongoing commitment, we are a signatory to the Australian Minerals Industry Code for Environmental Management, the Australian Greenhouse Challenge and the Western Australian Cleaner Production Statement.

The independent triennial compliance audit for the Minerals Industry Code was conducted this year. Figure 1 shows that we performed at the highest average level for all signatories to the Code.

# Safety Management System (SMS)

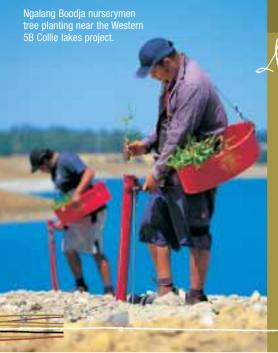
Our SMS is the RiskMap Safety Management System made up of 67 standards.

Inspection systems have been developed and form part of the weekly routines of our operations departments.

# **POLICY**

Our Safety and Health Policy was reviewed and updated. Environmental management is one of our highest priorities. We promote the development of policies, programmes and procedures for conducting operations in an environmentally-sound manner. Our environmental policy (see page 31) sets our management agenda through a broad statement of commitments and principles. It is reviewed regularly to ensure currency.

Our guiding policy principle is to take responsibility for minimising the impact of our operations on the environment. We acknowledge our accountability to employees, shareholders, government and the public. Performance information is made available to government and the public.



# CASE STUDY

# Making difference...

The local Aboriginal nursery, Ngalang Boodja, is the first such accredited nursery in Western Australia. We are proud to have helped development of the venture by underwriting a works programme at the Western 5 rehabilitation site. We are using the nursery to propagate seedlings and conduct in-fill planting. The Ngalang Boodja employees are now undertaking horticultural studies, and the group's leader is undertaking a horticultural management traineeship. We plan for the group to collect local provenance seeds from our rehabilitation areas to help meet our future needs and also provide weed control services.

Recent rehabilitation work for the Water Corporation, in the new Harvey Dam region, included the planting of nearly 240,000 seedlings, some of which were propagated by the nursery.

The nursery has been operating since 2001 and has six permanent and two temporary employees.



# AIR (ATMOSPHERIC EMISSIONS)

# Dust

There were no dust complaints this year.

Dust at our mine is mainly generated on roads, dumps and cleared areas and is only a potential problem during the dries

only a potential problem during the drier months of the year. Monitoring is only necessary at these times and annualised results are thus exaggerated, especially since they also include dust from all sources. Dust levels were well within licence conditions with the daily average level at nearby Buckingham up slightly on last year and the daily maximum down slightly (see Figure 2). Management strategies included minimised clearing and rapid rehabilitation when possible, tar sealing major road arteries and application of water to suppress dust on roads and operational areas.

# Odour

Spontaneous combustion of coal occurs periodically in the mine and can cause

an unpleasant odour but there were no complaints this year. An improved monitoring and reporting system of spontaneous combustion is under development as a result of the study into this issue referred to last year.

# Greenhouse emissions

We are a participant in the Commonwealth Greenhouse Challenge Programme and have a signed Cooperative Agreement through to 2005.

Our greenhouse emissions are largely due to use of diesel fuel and electricity with a smaller contribution from spontaneous combustion of coal. Collie coal has no associated methane emissions. During the year we conducted a detailed greenhouse emissions testing programme using bore core analyses. This work again confirmed that there are no methane emissions from our coal. The sources of emissions can be seen in Figure 3.

Net carbon dioxide (CO<sub>2</sub>) emissions per bank cubic metre equivalent (bcmeq) were down 49 per cent from 1994 levels, an increase of 5.8 per cent on 2002. Net emissions were 62,736 tonnes of CO<sub>2</sub>, down 14.2 per cent on last year due to lower production levels. This year, emissions increased from 2.59 kilograms per bcmeq to 2.74 kilograms per bcmeq (up 5.8 per cent) due to efficiency losses associated with the lower production level.

The diesel fuel additive system, introduced in November 2001, has continued to support improved fuel consumption (in litres/hour) with a reduction of 6.7 per cent this year building on a nine

FIGURE 2: DUST MONITORING (MICROGM/M3)

	94-95	95-96	96-97		98-99	99-00	00-01	01-02	
Daily averag	e (allowable 42.9	e 90microg 52.8	m/m³●) 34.3	48	28.7	27.6	39.6	29.9	33.2
Daily max (a	llowable 26	60microgm/	′m³ •)						
	93.7	97.1	58.4	112.2	69.3	47.9	162.3	63	59
	•								<b>→</b>
							†		
							1		
							1		
				•			i		
	4	•		•					<b>-</b>
	1	•		•			1		<b>-</b>
	1	•	•	1	•		•	•	<b>-</b> •
	<b>↑</b>	1		•		•	•	<u> </u>	<b>→</b>
	1	1	•	1	•	•1	1	•	<b>→</b>

per cent reduction last year. This equates to a reduction in emissions of 1,290 tonnes of  $CO_2$  this year.

# Noise

As mentioned earlier in this report the management of noise remained a key focus area. Consultation continues with the DoE and the community. A community plan to progress our application to modify the existing noise allowance has resulted in a consultation bulletin being published by the department. A variation to our existing noise conditions will enable us to clearly operate within requirements.

Our equipment noise levels have not increased, even though the operations have moved closer to our neighbours at Buckingham.

Blasting improvement strategies are continuing to deliver a strong performance as we have been able to maintain a low triggered blasting level average of 104dB(L), with only one blast exceeding the legal limit of 125dB(L) (see Figures 4 and 5).

The highest recorded blast was 126.2dB(L) while 98.9 per cent of the blasts were below 115dB(L). There was an eight per cent decrease in the total number of blasts to 547 and the number of blasts not triggering the monitor, set to trigger at 115dB(L), decreased by 10 per cent. The blasts triggering the monitor were largely due to the concentration of

FIGURE 3: TOTAL CO2 EMISSIONS BY SOURCE (TONNES)

02/03

<ul><li>Electricity</li></ul>	23,220.3
• LPG	222.8
Petrol	159.1
<ul><li>Diesel</li></ul>	42,333.5
<ul> <li>Spontaneous combustion</li> </ul>	2,124.0
<ul><li>Explosives</li></ul>	312.9

FIGURE 4: PREMIER MINE BLASTING BUCKINGHAM MONITOR

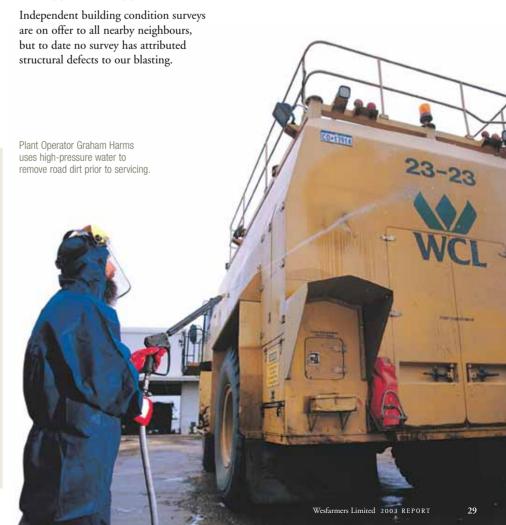
	95	96	97	98	99	00	01	02	03
Total Numer	70	165	262	271	261	349	477	596	547
Not triggered	27	49	149	191	197	297	299	443	353
Number <115	64	149	242	261	254	343	455	586	541
% <115dBL	91.4	90.3	92.4	96.3	97.3	98.3	95.4	98.3	98.9
Average dBL	110	106	106	106	101	102	102	101	104

FIGURE 5: PREMIER MINE BLASTING 2002 - 2003

	Buckingham	Griggs
<125dBL	99.8%	100%
<120dBL	99.6%	100%
<115dBL	98.9%	99.6%
Ave dBL when triggered	104	97
Total blasts	547	547
Not triggered	353	534

operations, in the early part of the year, at the eastern end of Pit 1 which is closer to residents and the monitor.

There were five complaints for blasting on our site for blast levels ranging from 107dB(L) to 117.5dB(L).



# WATER

Dewatering is required for safe and efficient mining in the Collie Basin. All groundwater abstraction, a part of the dewatering process, is licensed and monitored. During the year, 10.5 ML/day were pumped with a total abstraction of 3,821ML (see Figure 6), down 16 per cent due to bores being retired as the mine advanced.

We are committed to making good any loss of water suffered by our neighbours. To date, dewatering at the mine has not affected groundwater levels near private land or dwellings in the area.

# Consumption

Part of the dewatering stream is utilised for dust suppression (14 per cent) and process water (two per cent). Process water is used for vehicle wash down, domestic and workshop requirements. Total consumption this year was down 19ML to 594ML representing 16 per cent of abstraction.

We are licensed to discharge water off-site to the environment, but again we have not done so this year (see Figure 7). Despite the zero discharge, we continued to monitor adjacent river systems and maintained a computer database and management system for water quality,

abstraction, discharge and regional waterway monitoring.

Overflow from Sump A was up 344ML to 1,089ML, due to higher rainfall and this flow was captured in the WO-5H void as part of the rapid fill programme. During the year we constructed a limestone 'rip rap' system which, after initial assessment, has successfully reduced water acidity and iron content of in-pit water discharge (see Figure 8).

#### Reuse

Apart from the water used by the mining operation, 3,227ML was sent to local power stations – the major users in the area – thus helping to reduce overall abstraction in the Collie Basin.

In the maintenance and fuel bay area we have a Dissolved Air Flotation (DAF) plant available to treat run-off and vehicle wash down waters if required. The flotation system was taken off-line this year as using only the plant's silt traps and oil skimmers results in a higher quality water output than using chemicals in the DAF plant itself. Hydrocarbons are still recovered from the water and recycled with the other waste oils. The main infrastructure area is serviced for sewage by a treatment plant with treated water available for garden reticulation during drier periods.

# WASTE

# Solid waste

Around 54 per cent of the solid general waste stream is disposed of as landfill, amounting to 716 cubic metres prior to compaction.

# Liquid waste

Hydrocarbons are our main liquid wastes and these are captured by evacuation systems or the DAF plant. This waste is transported to a local recycling plant where it is used mainly in the production of low-grade oils or fuel oil. A total of 195,200 litres was recycled. Oil filters are also taken for recycling.

# Recycling

Our main waste streams - including used oils, metal scraps, cardboard, paper, tyres and batteries - are recycled. Of the solid general waste (not including scrap metals and tyres) over 46 per cent was recycled, a decrease of three per cent. Recycling efficiency for general waste improved by one per cent to 88 per cent, just short of our target of 90 per cent.

Recycling is promoted through the provision of bins at work for employees' domestic requirements. We also continue to help drive the Collie Tidy Towns Programme.

FIGURE 6: WATER ABSTRACTION

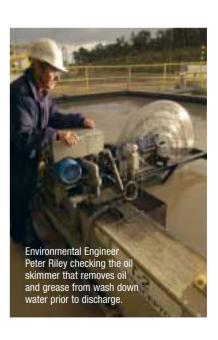
	94	95	96	97	98	99	00	01	02	03
Megalitres	14,876	6,513	4,737	3,265	2,384	3,085	2,681	4,411	4,547	3,821
	•									
		T	•							
				•	•	•	•			1
					I.			_ 1	I.	

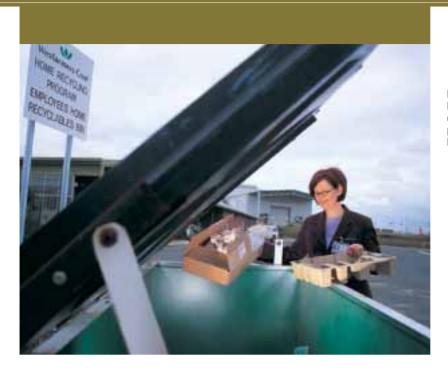
FIGURE 7: WATER DISCHARGE

94
95 96 97 98 99 00 01 00
95 96 97 98 99 00 01
95 96 97 98 99 00
95 96 97 98 99
95 96 97 98
95 96 97
95 96
95

FIGURE 8: WATER QUALITY

	00	00	00	01	00	02
	98	99	00	01	02	03
рН	3.5	3.9	4.06	3.75	3.7	3.4
Fe	0.6	1.8	1.93	3.65	10.6	16.96
Total BCM equivalent	21.10	23.45	32.2	32.26	28.26	22.88





Human Resources Clerk Denise Aitken using one of the bins provided as part of the Home Recycling Programme.

# LAND

# Flora and fauna

Protection of surrounding forests is a priority and clearing operations are minimised as much as possible. Prior to clearing, operational areas are mapped to determine dieback boundaries. Our procedures for clearing, topsoil removal/replacement and land rehabilitation minimise the risk of spreading jarrah dieback. Infected soils are kept separate for application only in areas with minimal risk of disease spread.

Disturbed land is returned to stable, compatible bushland by using local native seeds and trees. Habitat logs are placed in rehabilitation areas to promote recolonisation of native fauna. Regular inspection and permanent monitoring plots identify improvement opportunities and ensure successful uptake.

Faunal surveys of our rehabilitation sites are designed to assess small to mediumsized mammals, frogs, reptiles and birds. The rehabilitation is showing good recolonisation providing habitat for a range of representative vertebrate species.

Research is underway to assess the suitability of birds as bio-indicators of rehabilitation success as well as research into success factors for the rehabilitation process.

# Contamination

No significant site contamination has been identified.

# Rehabilitation

Major open cut mining commenced in 1970 and since then 2,618 hectares of bushland have been disturbed by mining and associated activities. Revegetation commenced in 1975 and 1,210 hectares (or 45.2 per cent of the disturbed land) have now been rehabilitated (see Figure 9).

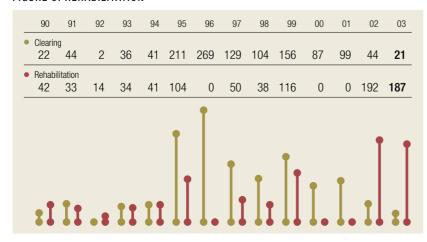
Successful rehabilitation work requires the careful planning and interaction of numerous processes. A key to our success is correct waste rock management with materials likely to generate acidic conditions buried deep in the dump or backfill profile. Final dump surfaces are covered with a one-to-two metre blanket of inert material and spread with topsoil ready for revegetation.

Rehabilitation at the closed Western 5 mining area in the Cardiff Sub Basin progressed significantly with 127 hectares seeded, requiring shaping to slopes of around 10 degrees, capping, topsoiling and then installation of contour drainage. A further 30 hectares was completed at the Premier Mine site. Overall rehabilitation completed for the year was 187 hectares.

In-fill planting at Western 5B commenced with seedlings being raised by the local Aboriginal Ngalang Boodja Nursery. Work was delayed by the late winter rains. This project is covered in more detail in the Case Study on page 28.

Rapid fill of the WO-5B void recommenced with the programme designed to increase safety and enhance the final rehabilitation outcome. A further 6,541ML of water were diverted raising the lake level by 7.35 metres. It is expected that an average flow in the winter of 2003 will see the lake rise 4.8 metres to full – an inflow of 4,680ML. Diversion has assisted acidity control considerably and it is expected that, when full, the void will stabilise at above 5pH – an acceptable level for active water sports. This programme has reduced the natural fill time of 100

FIGURE 9: REHABILITATION



# **ENVIRONMENTAL POLICY**

Wesfarmers Premier Coal Limited is a mining company currently operating in the Collie Coal Basin of Western Australia. The Company seeks "best practice" in environmental management and is a signatory to the Australian Minerals Industry Code for Environmental Management. Premier Coal accepts and respects community and regulatory concern for the environment and shall make its Environmental Policy available to all interested parties, including the general public. To support its commitment, the Company:

- 1. Acknowledges responsibility to minimise and manage the environmental changes caused by its operations as a critical business function.
- Shall, with the encouragement, participation and support of all employees and contractors, and through our Environmental Management System, maintain sound environmental practices, responding quickly and effectively to any environmental incidents arising from Premier Coal operations.
- Shall include environmental management and rehabilitation considerations in all stages and aspects of our mining activities.
- Shall strive to prevent pollution, minimise waste and conserve resources as we manage our environment. Major considerations include noise, water, dieback, clearing and burning, blasting, dust, energy, waste materials and land rehabilitation.
- Shall set and strive to maintain standards to comply with all applicable legal requirements, government policies and agreements for the protection of the environment.
- 6. Shall promote environmental awareness and clear definition of individual responsibility, and further develop environmental expertise through relevant training of all employees.
- 7. Shall review, develop and strive to improve our practices through research as well as through consultation with employees, the community, government agencies and industry groups.
- Will measure and audit our performance, reporting results to employees, government and the public. We shall also discuss openly and constructively issues of community concern.

S. Butel Managing Director July 2002

years down to five years, expediting the availability of the area which has a high potential for other valuable purposes such as tourism, recreation and aquaculture. The lake will have a surface area of 103 hectares and should be well suited to water sports such as skiing and rowing. The economic development is currently subject to a detailed study and design.

Any recreational development in this area will complement the Collie Motorplex which is now an established driver-training and club motor sports centre. Based at the former Western 2 underground mine site, the motorplex has successfully built upon existing mine infrastructure including workshops, other buildings and an extensive road network suitable for racing and training. Rapid fill of the WO-5H void also continued with the level raised a further 3.2 metres (compared with a rise of

1.9 metres last year) due to higher rainfall. Research at this site into aquaculture as a relinquishment option was completed with encouraging results showing that economic development could be achievable.

# **RESOURCE USE**

# Energy

Total energy consumption for this year was 651,867 gigajoules, down 11.4 per cent from the 736,021 gigajoules used during last year. Production decreased 18.7 per cent with 22.94 million bank cubic metre equivalent (Mbcmeq) mined this year compared with 28.21 Mbcmeq last year.

# Fue

Our energy consumption is dominated by a diesel-powered fleet that accounts for

86.7 per cent of all fuel use by gigajoule. Other fuels used include liquefied petroleum gas and petrol.

# Electricity

The use of electric shovels, coal processing/handling, dewatering and maintenance workshops dominate electricity demand, with electricity 12.4 per cent of total energy requirements.

# Raw materials

Explosives are a major consumable requirement with 1,806 tonnes used during the year, a reduction of 31 per cent from last year. This reflects reduced production but, more importantly, improved efficiencies in blasting. The overall powder factor has been reduced from 0.23 kilograms per bank cubic metre (bcm) last year to 0.15 kilograms per bcm this year, a 35 per cent reduction. Powder factor is the ratio of the weight of explosives used to blast a unit of material.



A Mines Occupational Safety and Health Advisory Board survey group conducted a safe behaviour survey of our workforce in December 2002, as part of a statewide assessment covering up to 60 mines. The results were made available to the mining industry in March 2003 and feedback was given to our workforce. The survey indicates an improvement in safety behaviour across the mining industry.

# **LOST TIME**

Our Lost Time Injury Frequency Rate was zero (compared with 6.4 last year) and, during the year, there were no LTIs. We believe this is a first for the coal industry in Western Australia. Our Average Time Lost Rate, which provides a measure of the severity of such injuries, was zero (compared with 11.5 last year).

Safety statistics are reported to senior management every month and to our board every two months.

A very big improvement in our safety performance was a highlight with no LTIs this year, contributing to a record 419 days without an LTI to the end of the year. This has bettered our previous record of 177 LTI-free days. Our LTI-free days records for each department are set out in Figure 10.

FIGURE 10: DAYS SINCE LAST LTI

02-03
522
419
2705
3300

We did, however, have three high potential incidents involving heavy machinery - a collision between a truck and grader due to operator fatigue; a lubrication truck tipped on its side caused by operator error; and an incident involving arcing from a high voltage aerial conductor to an excavator radio aerial during transport on a low loader.

# **WORKERS COMPENSATION**

There were 46 workers compensation claims reported, relating to occurrences during the year, compared with 45 last year.

A regular review of all injury claims is conducted with our insurers to assess progress on outstanding claims and any injury rehabilitation plans. On-site injury management clinics are held to assess ongoing musco-skeletal injuries.

Our occupational health nurse achieved WorkCover certification as an injury and workers compensation coordinator.

We continued to use the services of rehabilitation and vocational service providers.

# HAZARD AND RISK

# **Programmes**

Hazards and incidents are captured within our Hazard and Incident Reporting system. All hazards and incidents are reviewed with investigation outcomes and actions recorded in our Human Resources Information System. Any current reports and outstanding actions are reviewed twice weekly to monitor progress.

The RiskMap standards specify the minimum requirements of our safety systems. A risk register has been developed using a rating system that identifies extreme and high-rated risks and for control and reduction of each identified hazard.

Departmental safety audits are conducted on a regular basis.

Our fire detection and suppression systems and equipment are regularly serviced, checked and maintained. We have evacuation signalling systems in our main buildings and switch rooms. Procedures for raising the alarm are part of our induction and safety meetings feedback. We have an Emergency Management Plan. During the year we reviewed our site and particularly our explosives compound security in reponse to heightened awareness of potential terrorist threats.

# **Emergency response**

We have an Emergency Management Plan which includes the Crisis Management Plan. This plan was updated in November 2002 as a result of a requirement by Wesfarmers Energy (of which we are part) that all energy businesses would conform to a standard template. The emergency plan and crisis management aspects were successfully tested in a simulated scenario on 18 December 2002 involving a collision between a light vehicle and a truck.

# Materials handling and storage

A register of hazardous substances and dangerous goods is maintained and audited annually. Any new chemicals are reviewed and assessed prior to being allowed on-site. Material Safety Data Sheets for each of our hazardous substances and dangerous goods items are maintained and available through our ChemAlert Material Safety database.

# Risk assessment

A hazard register is maintained of risks identified in each operational area. The production department conducts start-of-shift briefings to ensure a structured method of relaying information including hazards and safety alerts to the oncoming crews.

An insurance risk survey was conducted to examine our fire emergency response systems. The survey included the testing of hydrant systems for pressure and flow rates.

An annual service and inspection of all our fixed fire systems was conducted including alarms, detectors and fire suppression systems. All switch rooms and computer/communications rooms were tested to ensure gas suppression integrity.

Task observations are conducted monthly in production areas. Pit permit access rules are maintained ensuring only authorised trained personnel are permitted access to enter haulage and mining areas.

# **EMPLOYEE WELLBEING**

We have health monitoring and promotion programmes in place to ensure our workforce is assessed and educated about health issues.

Our health promotion during the year continued focusing on strain injury prevention, Fitness for Work, weight loss and a smoke-free environment. Blood pressure, cholesterol and diabetes checks were also offered as part of the federal government's awareness campaign on adult diabetes.

The HealthMap medical and fitness assessment programme continued to be offered to employees involving local medical practitioners and a physiotherapist providing free confidential "snapshot" reports of health status. Employees can either attend the HealthMap sessions on site or visit their own doctor.

ACCESS Counselling conducts our Employee Assistance Programme which is available to employees or their immediate family. This is a confidential service aimed at resolving or assisting with personal issues that may have an impact on work.

We also participated in the QUIT anti-smoking campaign in May 2003.

Diabetic risk assessments were conducted for operators. Employees assessed as being overweight can participate in weight-loss group meetings at the Occupational Health Centre. We run both Gutbusters and Weight Watchers programmes with employees' partners and spouses welcome to participate.



# **STAKEHOLDERS**

Our stakeholders include employees, the Collie community, local schools, local government, customers, suppliers, relevant government agencies, various non-government organisations and the shareholders of our parent company, Wesfarmers Limited.

Recognising a need for liaison with a broader group of our stakeholders, we have established a Stakeholder Consultation Group. By providing a strong community interface, the stakeholder group will assist us in improving community awareness and involvement. This group's first task was to provide an assessment of last year's report – in particular the scope, clarity, design and ease of information access.

In addition, we provided to the group details of this year's performance.

Regular meetings are also held with local residents at which we provide general information as well as detailed environmental performance data. The Buckingham community meetings provide a valuable opportunity to discuss their concerns and suggestions.

# FEEDBACK/COMPLAINTS

We received five complaints concerning blasting, three regarding general mine noise, two for shovel hazard horn noise (a regulatory requirement) and one related to dipper door banging noise. We responded to each of the complainants in writing and with respect to the more serious issues raised we conducted an internal investigation.

# LIAISON WITH AUTHORITIES

We have an appointed senior manager to liaise with all authorities to ensure that relevant government agencies are kept informed of progress on existing issues and any new issues which arise.

# **ACTION GROUPS**

We are a member of the Local Emergency Management Action Committee (LEMAC), which is part of the Police and State Emergency Services plans. Each year LEMAC reviews the emergency services plan for the Collie region.

This year the group conducted a desktop emergency crisis scenario involving a bus and truck collision. Some communications and logistics issues were identified and the plan has now been updated.

We are represented on various committees of the Chamber of Minerals and Energy allowing us to participate in discussion of issues concerning the mining industry in Western Australia. An important aspect is participation in the Chamber's South West Regional Occupational Health and Safety Committee. This committee hosts educational conferences as well as emergency skills competitions between local and regional mining companies. We are also represented on the Chamber's Conservation and Land Management Committee, the South-West Environmental Forum and the Environment and Natural Resource Management Committee.

# COMMUNICATION

# Newsletters and reports

We report annually to a consortium of government departments through the Collie Coal Mines Environmental Committee

Information on issues and achievements is distributed in our quarterly publication "Premier Post" which is sent to all employees and contractors and is widely distributed throughout the community.

We also distribute to all employees a summary of operations via e-mail or mail-out called "Fortnightly Focus". This aims to keep employees and contractors up to date with key

performance areas such as safety and the environment.

During the year, we hosted a Community Open Day as part of a statewide initiative by the Chamber of Minerals and Energy.

Our Intranet site continues to make available information, including environmental and safety standards and procedures.

# Website

Development of a website was advanced during this year and will be on-line by December 2003.

# **COMMUNITY SUPPORT**

We continued to assist drought-stricken farmers by providing free agistment for cattle on pastured properties on our mining leases.

We again hosted a visit to site of first year medical and dental students from the University of Western Australia. The initiative aims to familiarise future medical practitioners with the environment, facilities and benefits of country towns and locations.



The Premier Coal Safety Voucher fund, a proportion of safety financial incentive awards managed by employees, contributed to community projects. Beneficiaries this year included youth support, heritage and tourism projects, local welfare and essential service groups and schools. Because of our excellent safety performance, a record \$42,547 was contributed by the fund to the Collie community. This was in addition to \$32,332 community contributions directly from us.

We have developed a Schools Compact for Education Excellence for all the local schools. The aim is to deliver improved education opportunities for children through identification of areas of special need, projects that can support the school curriculum, business and school interaction, programmes to inspire and encourage gifted students and to support and assist disadvantaged students to achieve their full potential and meaningful work experience.

We have been instrumental in progressing the assessment of a future industrial park near Collie that has the potential to encourage business development as well as a far more efficient utilisation of the energy produced by local power stations and our coal products. The project has attracted \$100,000 funding from government through the South West Development Corporation and Land Corp and we have provided the necessary land for future development.

#### RESEARCH

Work was completed on the \$420,000 Australian Coal Association Research Programme at our WO-5H mine site. The research aquafarm evaluated acidity treatments for abandoned mine water bodies with a view to value-added closure options such as aquaculture and recreation. The research developed new water treatment technology and showed that aquaculture is a viable mining end use. The aquafarm will now provide a longterm teaching and research centre for the local TAFE and the Centre for Sustainable Mine Lakes research programme. Monitoring of the Western 5B lake is an important component of the Centre's research into developing a predictive model for water quality and ecological development of mine lakes. This programme is essential for defining beneficial end uses and attracting capital developments.

We have a seven-year, \$100,000 a year commitment to the Cooperative Research Centre for "Coal in Sustainable

# Priorities for the future

Full environmental compliance.

Annual rehabilitation of at least the equivalent area of land we clear for mining.

Value-added rehabilitation and mine closure outcomes.

Ensure focus on any community issues or concerns with our operations.

Review our EMS for improved integration with other business systems and to achieve simplification where possible.

Further reduction in greenhouse gas emissions.

A target of zero accidents.

Assess compliance with AS NZS 4801-2001 Occupational Health and Safety Management Systems and improve Riskmap safety system where appropriate.

Review our safety standards and auditing.

Complete the Fitness for Work regime implementation.

Development". Work being done under this project by Curtin University of Technology involves achieving better environmental and greenhouse performance through efficiency and waste management improvements.

We continued to help run the Collie Centre of Excellence in Sustainable Mine Lakes through funding and management support.

#### Scholarships

Each year we provide tertiary scholarships such as the J A Ellis Scholarship and specific university scholarships.

The Wesfarmers Premier Coal Scholarship at Curtin University is supporting postgraduate research into birds as bio-indicators in the jarrah forest in south-west Western Australia. The study has already covered a range of forest types including pristine, logged, burnt and dieback-infested as well as rehabilitation areas on our mine site. Further work on our rehabilitation areas is planned.

Our University of Western Australia Scholarship is still supporting research into soil and plant factors which impact on rehabilitation success. We also sponsor the Joe Lord Memorial Scholarship being applied currently to research into mine site rehabilitation.

We provided work experience to high school and TAFE students from the south-west region and paid vacation employment to 13 tertiary students.

We also provide a student award for the local high school.

During the year we employed 15 apprentices ranging from those in the first year to those in the fourth year of their indentures.

#### **Awards**

We were successful in the Western Australian State Environmental Awards, coming second (to the overall state winner) in our category Business and Industry Leadership and Responsibility, with our entry titled "Leading Sustainable Mining Practices".

We were awarded a Certificate of Merit in the 2003 Golden Gecko Awards which recognise environmental excellence and leadership in the Western Australian mining and petroleum industry.





# Kleenheat Gas

We are a major distributor of liquefied petroleum gas (LPG) to a broad range of domestic, commercial, forklift, autogas and industrial customers. We operate in all mainland states through a network of depots, company-operated branches, commissioned agents, dealers and franchisees servicing more than 9,500 bulk, 191,000 domestic, 8,500 forklift and 1,500 Kwikgas customer installations. Other activities include a liquefied natural gas (LNG) plant at Kwinana in Western Australia and an LPG distribution facility in Bangladesh. We employ more than 600 people.

Our three main environmental issues are asbestos, waste management and monitoring of compliance with environmental legislation.

We implemented recommendations from consultants' asbestos assessment reports undertaken for Pinkenba in Queensland and our sites at Myaree and Kwinana in Western Australia.

We have developed an environmental management database to store information relating to our sites which will improve our ability to track legislative compliance and to monitor waste management practices.

During the year we focused on promoting the benefits of LPG as a cleaner fossil fuel.

Our two main safety issues are workplace injuries and compliance with relevant health and safety legislation.

We achieved a significant improvement in our safety performance with a reduction in our overall employee/contractor Lost Time Injury Frequency Rate (LTIFR) to 1.4. This is the first year that a combined employee and contractor LTIFR has been reported. A strong focus on early intervention has contributed to this improvement. There was also a reduction in the number of employee workers compensation claims.

We have prepared a Fitness for Work policy which will be introduced next year.

## LOST TIME INJURY FREQUENCY RATE\*



## NUMBER OF WORKERS COMPENSATION CLAIMS



#### 2002 REPORT PRIORITIES



Improve our safety performance by further educating our employees. Zero Lost Time Injuries (LTIs) continues to be our target, with an annual reduction of 50 per cent in our LTIFR.

One employee LTI, one contractor LTI and an overall LTIFR of 1.4, compared with an overall LTIFR of 6.2\* in the previous year.

To make progress with our Health, Safety and Environmental improvement plan.

The plan is approximately 90 per cent complete.

To introduce our Fitness for Work policy to Kleenheat employees through awareness training and implementation.

The final draft of the Fitness for Work policy has been distributed to employees for comment.

To further develop our Liquefied Natural Gas (LNG) market.

The LNG market growth has been slow, however, the ongoing development of existing LNG customers has been encouraging with four additional fleet vehicles in operation.

Develop an environmental management database.

-> Completed.

Improve monitoring and measurement of environmental performance.

Measurement of remnant gas recovery was extended to our operations at Camellia in New South Wales, Pinkenba in Queensland, Myaree in Western Australia and Deer Park in Victoria.



#### **TRAINING**

#### **Environmental**

Environmental awareness training is delivered to new employees as part of the induction process. The training includes statutory obligations, key environmental management practices and environmental incident reporting requirements. A further module "Environmental Benefits of LPG" was developed to provide detailed explanations of environmental advantages of LPG in comparison with other fuels.

#### Health

The primary focus of training for employees has been on Fitness for Work, with 163 employees having received this training in the year. We piloted a more in-depth manual handling training course, which focused on general anatomy, common injuries, preventative exercises and self-treatment. Thirty-six employees participated in this training.

#### Safety

Our operational elements of the competency training programme underwent a review. Training for our dealers and commissioned agents was also undertaken during the year.

In addition, we commenced a roll-out of fire safety training to employees with 83 employees attending.

#### Emergency

An environmental emergency evacuation drill was held in March 2003 at our Kwinana terminal. The scenario was a suspected ethyl mercaptan spill.

In addition, a night-time emergency response exercise was held at our Wandin terminal in Victoria to test the level of emergency response.

A trial of the National Emergency Response Communications System was conducted in May 2003. This involved a desktop exercise involving all states and territories to test the level of effectiveness.



#### Environmental

Any changes to environmental legislation in the states in which we operate are monitored through a company that specialises in environmental law. The company notifies us of any changes and has a website containing current environmental legislation. The annual environmental survey was completed for each of our sites. The results of the survey were compiled and analysed in the environmental management database which will allow us to set priorities and track future performance.



<sup>\*</sup> Please note – the 2002/2003 LTIFR refers to both employees and contractors. Previous data were for employees only



Investigation into the malfunctioning of the Pinkenba sewerage system determined that the current structure and operation of the system was not compliant with Brisbane City Council regulations. Options for upgrading this system are being investigated.

#### National Pollutant Inventory (NPI)

LPG is a volatile organic compound which is one group of substances reportable under the NPI. The presence and use of all 90 substances listed under the NPI was reviewed for our operations. However, we did not trigger any thresholds and therefore are not required to report.

#### Health

No non-compliance issues were raised with us by occupational health regulators.

#### Safety

We had one prohibition notice and one field report notice issued this year, both in relation to our Swan Hill facility in Victoria. The prohibition notice was issued for a 190kg cylinder trailer which had non-tagged and inspected lifting equipment on board. The trailer was moved from Swan Hill and the lifting equipment was destroyed. The notice was cancelled.

The field report notice was issued in relation to a number of issues at the site.

including the noise level of the fire pump and the recommendation for a risk assessment to be completed for manual handling of 45kg cylinders. A noise survey and risk assessment were completed to address the field report.

We complied with the outstanding notices referred to in last year's report relating to:

- emergency training at Swan Hill; and
- traffic/pedestrian safety, forklift inspections and spare parts storage at our Deer Park terminal in Victoria.

We finalised and submitted the revised safety report for the Kwinana gas terminal to the Western Australian Department of Industry and Resources.

#### Licensing and approvals

We hold four site-specific environmental licences. These are required by the relevant statutory authorities for our Pinkenba terminal, our Mongla terminal in Bangladesh, our LNG plant at Kwinana and our Myaree workshop in Western Australia. No additional environmental approvals were sought this year.

The safety case and operating licence for our major hazard facility at Swan Hill was accepted and granted by the Victorian WorkCover Authority in April 2003.

As part of the safety report for our major hazard facility at Kwinana, a quantitative risk assessment was completed in May 2003.

A safety case for our major hazard facility at Pinkenba is currently being written and is expected to be complete by the end of the financial year.

#### **MANAGEMENT SYSTEMS**

#### **Integrated Management System**

The Operations Management System (OMS) is an Intranet-based system covering safety, quality and environmental management requirements. The system is regularly updated to give users access to current information. The OMS includes links to codes of practice and regulators' home pages and health, safety and environment reference documents. The OMS is available to employees through our Intranet system.

# Environmental Management System (EMS)

The EMS is an integrated part of the OMS and is consistent with the principles of the international standard ISO 14001. We have maintained our third party certification to AS/NZS ISO 14001 (Environmental Management Systems)

at our Myaree and Kwinana sites since 1998. Third party certification has not been sought at any other sites.

#### Quality system

Our national quality management system was upgraded to meet the requirements of AS/NZS ISO 9001 at Deer Park, Camellia, Wingfield, Pinkenba, Kwinana and Myaree. Only the Darwin site is outstanding and we are on schedule to meet our target date of having the entire system AS/NZS ISO 9001 compliant by December 2003.

#### Safety Management System (SMS)

We have maintained our certification to AS/NZS 4801 (Occupational Health and Safety Management systems) for our Myaree and Kwinana sites.

#### Other/internal management systems

An environmental management database has been developed to manage environmental data related to each of our sites.

Work is progressing on the implementation of our business information system project which will incorporate health, safety and environmental aspects.

#### **POLICY**

We have formal policies for quality, safety and the environment. Each policy has been developed in accordance with the relevant Australian Standard. Our policies are displayed on our Intranet site. The environmental policy was revised during the year to incorporate the LNG operations and to note that we are committed to implementing a management system consistent with the principles of sustainability.



#### AIR (ATMOSPHERIC EMISSIONS)

#### Dust

Dust is an issue at some of our sites. The natural dust suppressant applied to the Wingfield yard in South Australia has resulted in the successful reduction of dust generated at this site and a safer and cleaner environment for all employees working in the yard. A dust concern was raised at Deer Park but given our plans to relocate from this site no long-term management was required.

FIGURE 1: REMNANT GAS RECOVERY

	Kwinana	Deer Park	Myaree	Camellia	Pinkenba
<ul> <li>Remnant gas recovered Jul02 - Jul03 (Tonnes)</li> </ul>	31	48	9	25	16
1000's cylinder tested	29	26	0	12	5
			I.	I	

#### Odour

In its natural state, LPG is odourless. For safety reasons it is necessary to add a small amount of ethyl mercaptan to give the gas a distinctive smell and to allow its presence to be easily detected should a leak occur. An odour release is associated with the venting of LPG to the atmosphere. LPG emissions are minimised through the cylinder exchange programme and remnant gas recovery. The recording of remnant gas recovery has been extended during the year beyond our Kwinana terminal to include Camellia, Pinkenba, Deer Park and Myaree (see Figure 1). The remnant gas recovery was highest at Deer Park where a large proportion of the 190 kg cylinders, holding the most remnant gas, are tested. Nationally, approximately 129 tonnes was recovered.

#### Greenhouse emissions

LPG produces up to 15 per cent less greenhouse gas emissions than petrol. This will be promoted through our Environmental Benefits of LPG training and also through education of our light vehicle fleet drivers in an effort to increase LPG usage and decrease greenhouse gas emissions. An autogas calculator has been developed to calculate the greenhouse gas savings generated by driving a particular vehicle on autogas rather than petrol over a specified number of kilometres.

As vehicles are changed over in the passenger fleet, LPG-powered vehicles are purchased wherever practicable, to minimise the fleet's greenhouse gas emissions. In the last year the number of petrol vehicles reduced from 11 to two and the number of gas vehicles increased from 46 to 58. The number of dual fuel vehicles has remained constant at 117 (see Figure 2).

The majority of our greenhouse gas emissions are a result of fuel use. For the

FIGURE 2: PASSENGER FLEET FUEL USE TREND

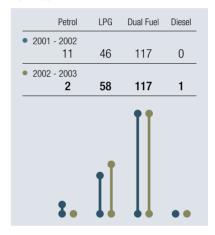


FIGURE 3: TRANSPORT EFFICIENCY

	02/03
Km travelled per bulk tonne	
LPG delivered	40
Litres diesel consumed per	
bulk tonne LPG delivered	7.9



## CASE STUDY

# Making difference...

Assessments have been undertaken at all sites where asbestos materials have been identified through the environmental surveys. Our Kwinana terminal in Western Australia was one of the sites where asbestos issues were managed during the year.

The cylinder filling shed, where more than 600,000 cylinders were filled, has an asbestos roof. Inspection by an independent consultant in 2002 recommended treating the external surface of the roof to provide long term control of the asbestos.

In February 2003 all the gutters were cleaned out and rubbish was bagged in accordance with health regulations covering potential sources of asbestos fibres. Patches of moss were removed and all cracks and holes sealed to make the roof ready for the application of the sealant. A water-based primer was applied first to penetrate through and bind any lichen and degraded asbestos to the sound base material. A polymer membrane was then applied to protect the encapsulated layers over the long term from heat, lichen growth and weather. The underside of the roof was also sealed to provide total encapsulation of the asbestos material.

Spraying fibroseal to encapsulate asbestos roof sheeting at the LPG terminal, Kwinana, Western Australia.

first time this year, the kilometres travelled per tonne of bulk gas delivered has been determined and litres of diesel consumed per tonne of bulk gas delivered have been determined (see Figure 3). In future years, a comparison against this value will be used as an indicator of our efficiency in delivery of bulk gas and success in minimising emissions.

Our greenhouse gas emissions were estimated to be approximately 20,720 tonnes CO<sub>2</sub> equivalent using available data.

#### Noise

We received no noise complaints and noise monitoring was not required or undertaken at any of our sites.

#### Other emissions

Asbestos air fibre monitoring was conducted at our Pinkenba terminal during the asbestos abatement project. All results were below the detectable limit of 0.01 fibres/ml. A report on asbestos management at our Kwinana site is contained in the Case Study above.

#### WATER

#### Consumption

As many of our sites are leased properties without a site-specific water meter, water consumption data is not recorded for each site. Twelve per cent of our sites use water for cylinder washing and 31 per cent use water for truck washing. Water may also be used for deluge systems, toilets, bathrooms and kitchens.

#### Discharges to surface and groundwater

At sites other than Kwinana and Channel Island (Northern Territory) the deluge water discharges to the natural ground surface.

#### Reuse

Fire deluge systems are erected above our bulk storage tanks where required. At Kwinana and Channel Island the released deluge water flows back into a water storage dam for reuse.

#### WASTE

#### Solid waste

We manage 51 sites. The type of waste generated depends on the nature and size of the operation. Unmanned depots do not produce any waste. Solid waste may include paper, cardboard, cylinders, valves, plastics, aluminium, glass and wood.

#### Liquid waste

Waste oil is generated at our Myaree workshop and the Wandin terminal, where it is collected for recycling. Waste thinners are produced at our operations where cylinders are repainted and the waste product is collected by licensed contractors for treatment and disposal.

#### Recycling

The percentage of sites recycling their waste paper, plastic, valves and glass has increased over the past year. Approximately 31 tonnes of brass and 164 tonnes of steel have been recycled from our test stations across Australia (see Figure 4).

FIGURE 4: BRASS AND STEEL RECYCLED (TONNES)

Brass     Steel	11.8 34.4	7.9 31.3	3.0 9.0	QLD 2.2 27.7	4.9 59.7	1.0 2.3	30.8 164.4
	•	•	•	Î			

FIGURE 5: KLEENHEAT FUEL USE (LITRES)

03	02	01
		• LPG
723,317	867,515	677,763
		<ul><li>Petrol</li></ul>
167,919	203,752	232,097
		<ul><li>Diesel</li></ul>
1,341,797	1,412,174	1,308,972



HSE Advisor Alan Meager explaining paper recycling arrangements to Logistics Co-ordinator Michael Likoravec at Niddrie.

#### LAND

#### Contamination

Contamination is unlikely to result from our LPG operations as LPG vaporises at atmospheric pressure preventing it from entering soil or water resources. As some of our trucks run on diesel or petrol, oil absorbent spill kits have been issued to some bulk delivery trucks in Western Australia. Plans are underway to complete the issue in Western Australia and to issue similar kits to bulk delivery trucks operating elsewhere in Australia.

Some of the sites we lease in New South Wales are contaminated from previous uses. The Kiama lease was discontinued. No remediation was undertaken by the council at Nowra so our operations have continued as before. Our site at Camellia is concreted which assists in preventing incident rainwater from spreading contamination. The new facility being constructed at Armidale will enable the relocation of our terminal from its current site and the remediation of that site by other parties.

Hydrocarbon-contaminated sediment was found in the storm water system at Pinkenba. The management of this contamination is being discussed with the landowner.

#### **RESOURCE USE**

#### Fuel

Most of the fuel we consume is used in transporting LPG. The total fuel usage, excluding contractors, is shown in Figure 5 in comparison to the previous two years.

#### Electricity

Electricity usage was monitored for the largest electricity consumers reported last

year. The office and workshop at Myaree continued to be the biggest consumer of electricity, increasing to an average daily usage of approximately 2,700 kilowatt hours (kwh). The site with the next highest electricity consumption was Deer Park with an average daily use of approximately 670 kwh, down from 730 kwh in the previous year.



#### **LOST TIME**

Our Lost Time Injury Frequency Rate was 1.4 (compared with 6.2 last year) and, during the year, there was one employee and one contractor LTI. Our Average Time Lost Rate, which provides a measure of the severity of such injuries, was zero (compared with zero last year).

Safety statistics are reported to executive management each month and to our board every two months.

#### **WORKERS COMPENSATION**

There were 49 workers compensation claims reported, relating to occurrences during the year, compared with 59 last year.

#### HAZARD AND RISK

#### Programmes

After reviewing our work permit system and conducting an initial round of training in the previous year, we commenced a second round in June 2003.

During the year, our heavy haulage vehicles were involved in 10 on-road accidents, with no personal injury or major damage. During the same period, our passenger vehicle fleet was involved in 11 road accidents. Again, there were no personal injuries and no major damage to vehicles.

Risk management forms one part of our Health Safety and Environment (HSE) improvement plan. The risk management strategies in the improvement plan were reviewed at a conference for our HSE team held in March 2003.

#### **Emergency response**

We developed a Crisis Management Plan along with other Wesfarmers Energy companies. This plan is still in a draft phase and is expected to be complete by the end of next year. Compliance Coordinator Kerry DeCoster and her daughters Tayla and Krysten at the Kids at Work Day, Myaree, Western Australia.

We plan to create an emergency response resource package based on results from the national desktop exercise held in May 2003.

We are currently in the process of revising emergency plans for all other applicable locations.

#### Materials handling and storage

In response to the Victorian manual handling Code of Practice we conducted a risk assessment of 45kg cylinder handling and storage in that state.

#### Risk assessment

In light of major hazards legislation in Victoria and Queensland, we have created two more risk registers to address those requirements at our sites at Swan Hill and Pinkenba.

All sites identified as containing asbestos materials have been surveyed by independent consultants. The consultants reports contain recommendations on asbestos management which are being actioned as required. This year the asbestosclad filling shed at Pinkenba and the workshop at Myaree were vacuumed to remove any fibres potentially present in the dust. The asbestos roofs of the cylinder filling shed at Kwinana and the retail store at Rockingham in Western Australia were sealed to prevent further weathering and release of fibres. A more detailed account of the Kwinana treatment process is contained in the Case Study on page 40.

#### **EMPLOYEE WELLBEING**

We conducted another round of employee health assessments with 185 employees participating.

Employees were also offered the opportunity to have an influenza vaccination with 158 employees taking up the offer.

To encourage employee wellbeing at work and at home a Kids at Work day was held in May 2003. Employees were able to bring their children to work in the afternoon for a tour of the workplace and some activities.

We also produced a calendar in which we ran a competition for the children of employees to submit a drawing based on



health, safety or environmental themes. The competition winners had their drawings published in the calendar.

Our employees are also involved in charitable fundraising at work for events such as Red Nose Day and Daffodil Day. Victoria. These awards recognise the significant contributions that communities make to their local region.

As part of our commitment to raising community awareness of LPG safety, we provide LPG safety training to any interested party or public group.



#### **STAKEHOLDERS**

Our stakeholders include our employees, customers, suppliers, the local communities in which we operate and the shareholders of our parent company, Wesfarmers Limited.

We conducted a cultural and feedback survey with our employees in September 2002 to gauge their thoughts and feelings on our company and views on their own and other departments. The results of the survey were progressively fed back to them.

As part of improving our commitment to customer relationships and service, we commenced Key Account Relationship Management training in October 2002. To date, 71 staff have undertaken the training.

A number of our appliance and asset suppliers were invited to attend the Kleenheat Convention, held on the Gold Coast in Queensland during October 2002. As part of the convention, our suppliers held an expo to showcase new appliances and gas-related products.

We conducted the Community of the Year awards in association with local government and communities at Geraldton and Kalgoorlie in Western Australia and at Geelong, Hamilton, Wangaratta, Bendigo and Taralgon in

#### FEEDBACK/COMPLAINTS

Most customer issues are handled by first point of contact with our Customer Service Centre (CSC) officers. If an issue requires further attention, the matter is recorded and dealt with by the CSC manager, supervisor or other senior personnel. We handled 175 such issues during the year.

#### LIAISON WITH AUTHORITIES

Kleenheat continues to maintain a working relationship with government authorities nationally to ensure we deal with compliance issues outlined in earlier sections of this report.

#### COMMUNICATION

#### Newsletters and reports

We maintained a high level of employee feedback through both our "Gas-Bagging" and "Safeside" newsletters. We also distribute "Well-at-Work" newsletters to employees providing a range of information relating to general health and wellbeing.

#### Website

Our website (www.kleenheat.com.au) continues to provide an area dedicated to the environment and safety where the public can contact us in relation to these issues.

#### Liaison groups

We remain a member of the Australian Liquefied Petroleum Gas Association.

#### Community support

We sponsored a number of community organisations during the year.

The Kleenheat Gas Community of the Year awards were originally launched during April 2002 in regional areas of Western Australia and Victoria, with the winners being announced in November 2002. Each state winner received a community plaque and a perpetual trophy to recognise the significant contribution they made to their community.

Sponsorship of the Clontarf Football Academy continued through the year and included provisions for football uniforms to the college, support of country tours and a barbecue facility.

The local State Emergency Services at both Shoalhaven City in New South Wales and Rockingham/Kwinana in Western Australia were donated computers, enabling volunteers the use of this vital equipment needed in emergency situations.

In addition to this, in May 2003, we sponsored the Sea Rescue Service at Albany in Western Australia by providing them with life jackets, heaters, a barbecue and fuel.

Sponsorship has also been given to organisations such as the Oz Bali Concert, a fundraiser for the victims of the Bali tragedy, and the Amanda Young Foundation which raises awareness of meningococcal disease.

Other sponsorships include the Wesfarmers Kleenheat Gas Prize for the University of Western Australia Centre for Oil and Gas, Chef of the Year and support for various art, sporting and community sponsorships.

Priorities for the future

Train our employees in the environmental benefits of LPG.

Continue the asbestos management programme.

Further progress the Health, Safety and Environmental improvement plan.

Zero Lost Time Injuries continues to be our target with an annual reduction of at least 50 per cent in our LTIFR.

Implement Fitness for Work policy.

A contribution by Therese Agresta for the Kleenheat 2003 Health, Safety and Environment calendar.







# Wesfarmers LPG

We own and operate a plant at Kwinana in Western Australia which extracts LPG from the natural gas stream in the Dampier to Bunbury pipeline. Our product supplies the domestic market with the balance exported to Japan. Production reached record levels during the year with plant capacity now at about 350,000 tonnes per annum. We employ about 40 people.

Our three main environmental issues are noise emanating from the plant, smoke emissions from the flare and fugitive odours.

During the year we focused on noise reduction projects, development and implementation of a formal environmental policy and establishment of an environmental complaints register in relation to environmental performance.

We continued to manage the operation of our flare by monitoring in the plant control room and our odourant injection facilities are regularly inspected to ensure that any leaks are quickly repaired and spillage contained and neutralised.

We progressed the environmental site assessment by approving a proposal to conduct a stage 2, 3 and 4 environmental site assessment and undertaking site work associated with stage 2 of this project.

Work on a project to redirect minor LPG emissions from tanker loading to flare rather than to atmosphere continued during the year.

Our two main safety issues are the protection of employees and visitors to our plant and compliance with the national standard for the control of major hazard facilities.

The continuation of our zero Lost Time Injury Frequency Rate (LTIFR) for employees was a highlight of this year's safety performance with the achievement of 508,261 workforce exposure hours free of Lost Time Injuries (LTIs). Unfortunately we incurred one LTI for a contractor who sustained an injury during welding activities, which resulted in two days lost time.

We developed a draft Fitness for Work (alcohol and drugs) policy with regard to safety and health. Voluntary health and fitness assessments and follow up sessions by an independent consultant were carried out for employees and long-term contractors.

## LOST TIME INJURY FREQUENCY RATE\*



## NUMBER OF WORKERS COMPENSATION CLAIMS



#### 2002 REPORT PRIORITIES

#### OUTCOMES

No workplace injuries and LTIFR at zero	N	o work	place	injuries	and	<b>LTIFR</b>	at zero
---	---	--------	-------	----------	-----	--------------	---------

- One employee injury and five contractor injuries requiring medical treatment, which led to one contractor LTI. LTIFR of zero for employees.
- Ongoing identification and control of hazards.
- Continued use of site Permit to Work system.
- No significant release of hydrocarbons to the atmosphere.
- No significant releases. One minor natural gas release following the operation of a pressure safety valve with no threat to employees or the public. Hazard and Operability (HAZOP) study conducted for project to divert minor LPG emissions from tanker loading to flare.
- Continued roll-out of the noise reduction programme.
- Noise reduction on plant items progressed. Phase 2 and 2B completed with subsequent noise measurements conducted to assess compliance. Phase 3 underway.

Progress environmental site assessment.

- Stage 1 completed. Proposed stages 2, 3 and 4 approved by management. Site work associated with stage 2 completed this year.
- Implement Fitness for Work (alcohol and drugs) policy.
- Draft policy developed and issued to site management for review.

Develop formal environmental policy.

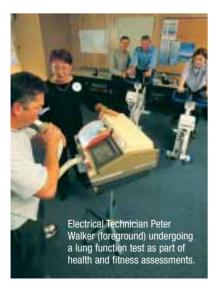
Environmental policy developed and implemented this year.



#### **TRAINING**

#### Environmental

Our induction programme for all new employees and contractors addresses environmental awareness of their work area with emphasis on response to product spillage and general housekeeping. There were 149 inductions carried out this year associated with planned maintenance activities and new projects. Our training programme contains procedures for managing environmental licence conditions.



#### Health

Voluntary health and fitness assessments using the services of an independent consultant were conducted this year for employees and long-term contractors. Health management plans were discussed with each participant following these assessments. The next series of assessments are scheduled for 2005. Fitness for Work (alcohol and drugs) awareness training was conducted for employees and long-term contractors as part of the introduction of a formal policy.

#### Safety

All employees and contractors must attend a safety induction programme before being allowed access to the process area to ensure that they are aware of hazards, work permit requirements, occupational health and safety and emergency response procedures.

All employees undergo vocational training to meet the requirements of their position with competencies measured against national standards (where available). In addition, a comprehensive competency-based training programme is in place for all process operators, involving demonstration of acquired competencies against internal and national standards. The review of the internal competency standards, including training workshops, continued this year to ensure they matched current plant status. This process will continue next year.

#### Emergency

A comprehensive emergency response training programme is in place relevant to each employee's position. This includes basic, intermediate and advanced fire fighting, breathing apparatus training, search and rescue and fire ground command programmes. Training under this programme is conducted annually. As part of our Safety Report requirements, 35 employees completed an advanced fire fighting course, 13 completed the fire ground command course and nine went through the fire awareness and control programme.

#### COMPLIANCE

#### **Environmental**

We continued implementing the noise management plan to address non-compliance issues with the Environmental Protection (Noise) Regulations 1997. This involved the implementation of noise reduction projects on plant items which now bring us closer to compliance with the regulations. This is discussed in more detail in the Case Study on page 48.

#### National Pollutant Inventory (NPI)

Air emissions notifiable under the NPI were estimated for oxides of nitrogen, carbon monoxide, nickel carbonyl, heavy metals and associated compounds and

particulate matter. Data for the 2001/2002 reporting period was submitted to the Department of Environment (DoE). Detailed information is available at: www.npi.gov.au.

#### LICENSING AND APPROVALS

The plant operates under licences issued from the DoE and the Department of Industry and Resources (DoIR). These licences are issued annually and we are not aware of any non-compliance with DoE licence conditions, other than the environmental noise non-compliance which is discussed in the Case Study. There are some minor levels of noncompliance with DoIR licence conditions which are reported under the Safety Management System section.

We submitted a Works Approval Application to the DoE in March 2003 in order to increase our production capacity of liquefied natural gas (LNG). The department issued a Works Approval for this new LNG plant in March 2003.

#### **MANAGEMENT SYSTEMS**

#### **Environmental Management** System (EMS)

Environmental policy and procedures are addressed in our Safety Report and our DoE licence conditions. This has been further enhanced by the introduction of a formal site Environmental Policy.

#### Quality system

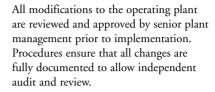
We have a Quality Assurance system meeting the requirements of ISO 9001 for the testing, inspection and servicing of safety relief valves. These valves are tested at prescribed periods. An independent audit was undertaken in February 2003. The auditor concluded that our certification should continue.

#### Safety Management System (SMS)

All health and safety policies and procedures are referred to in our Safety Report. Following consultation with DoIR the report was revised and submitted to DoIR, who accepted it in March 2003. The report is subject to independent and regular audit and is overseen by DoIR.

Following a compliance audit conducted in June 2002, the report recommendations were discussed with DoIR and an action plan was developed. We are making progress with these recommendations. The next compliance audit is scheduled

accident and incident investigation, manual



#### **POLICY**

We are committed to providing a healthy and safe workplace for all employees and visitors to the Kwinana extraction plant and our gas export facilities. Identification and control of hazards and prevention of incidents and injury are of the highest priority. This is achieved through a consultative process which defines and implements training, policies and procedures for the wellbeing of all employees. Four safety and health representatives continued in their roles on the site occupational health and safety committee this year. A new safety and health representative was elected to replace one who left the company in the last quarter of the year.



#### AIR (ATMOSPHERIC EMISSIONS)

#### Dust

To control dust, large areas of grass have been planted and are maintained.

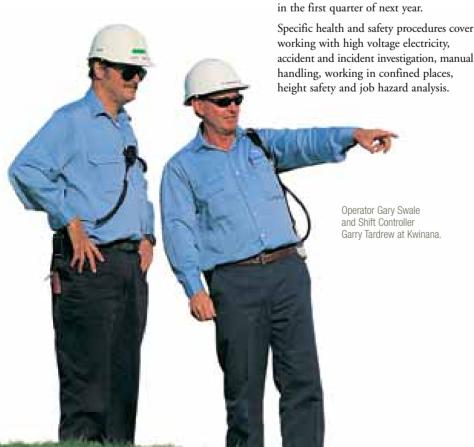
#### Odour

Propane and butane are naturally odourless. For safety reasons, we are required by legislation to inject low levels of ethyl mercaptan (odourant) into the gas. This gives it a distinctive odour allowing leaks to be detected. The injection system is closely monitored as even minor drips can give rise to offensive odours. Any leak is quickly repaired and spillage contained and neutralised. No odour complaints were referred to us by the DoE in 2002/2003. We received three complaints from nearby industries and these were captured in our environmental complaints register.

#### Greenhouse emissions

During the year we released an estimated 330,276 tonnes of carbon dioxide equivalent. This is a decrease from the estimated 342,800 tonnes released during the previous year due to plant outages involving the train one recompressor.

We installed sample points to allow sampling of emissions from the discharge streams on train one and train two



Wesfarmers Limited 2003 REPORT

recompressors, Ruston generator and the gas-fired oil heater to enable a comparison between the actual and estimated emissions. Results to date indicate a lower level of emissions of nitrous oxides from the train two recompressor than design specifications. Other sample points indicate emissions are in line with design specifications which were reported to the DoE in 2000. Further sampling of these emissions will be carried out next year.

#### Noise

The extraction plant operates 24 hours a day. There are numerous items of rotating equipment giving rise to a low level of background noise at the plant boundary. We continued implementation of the management plan aimed at reducing noise emissions from the plant as far as practicable. Details of the work carried out are contained in the Case Study on page 48.

#### Other emissions

There have been no environmental incidents involving significant release (defined as a release which may affect areas outside the plant) of LPG, natural gas or condensate to the atmosphere since the commencement of plant operations in 1988. There have been occasional minor LPG releases (defined as those contained within the plant) that have been quickly brought under control.

There was a minor natural gas release, lasting about fifteen seconds, during a plant start-up in March 2003, following the operation of a pressure safety valve on the train one absorber. The release was safely dispersed and did not pose any threat to employees.

During plant shutdowns, or occasionally to control pressure in operating vessels, gas has to be released to the atmosphere. This gas is safely disposed of through combustion flares. The flare tips are continuously monitored in the control room via a closed circuit camera.

In the event of a high flaring rate, additional combustion air is fed to the flare tips to prevent the formation of black smoke.

There are minor emissions of LPG at the completion of loading of road tankers when the hoses are disconnected. Plant modifications were approved by site management to allow the LPG emissions to be directed to the flare. A project was established and a HAZOP study has been conducted to ensure the safe discharge of LPG emissions to flare. This project is scheduled to be completed next year.

#### WATER

#### Water consumption

We consumed an estimated 17,500 kilolitres of scheme water during the year.

#### Groundwater

Three bores operating on the site provide water for garden reticulation and for emergency response.

#### Discharges to surface and groundwater

Storm water run-off from the paved sections of the processing areas is directed to oil/water interceptors where any oil present is skimmed off and recovered. A licensed contract waste disposal firm removed all of this oily water waste, totalling 4,800 litres.

#### Reuse

Water used for deluge system testing purposes in both the domestic and export storage tank areas is returned to a storage pond for reuse.

#### WASTE

#### Solid waste

A waste management contractor removed about 741 cubic metres of solid waste (general site waste) during the year for off-site disposal. There is no landfill of waste on site.

We participated in a Kwinana Industries Council (KIC) survey to help identify current industry waste management practices. The information provided will help develop future waste management strategies within the Kwinana industrial area.

#### Liquid waste

An oil recycling contractor removed 4,650 litres of oil wastes (lubricating and seal oil) from the site during the year.

#### Recycling

Paper and cardboard recycling bins continued to be used as part of our paper products recycling policy and about 114 cubic metres of paper and cardboard were removed by our solid waste contractor for recycling.

#### LAND

#### Flora and fauna

Extensive landscaping including trees and shrubs is maintained to improve the appearance of the facility.

#### Contamination

A proposal to conduct stages two, three and four of the environmental site assessment was approved, following the initial stage one site assessment conducted in 2001. Site works were completed and the consultant's report is scheduled for completion in the first quarter of next year. This report will cover further investigation of the extent of the contamination referred to last year.

#### Rehabilitation

After completion of minor projects on the plant and associated facilities, excavated areas were filled and reinstated.

#### **RESOURCE USE**

#### Energy

Our total energy consumption for the year was 1,802,886 gigajoules compared with 1,903,217 gigajoules last year.
Our energy sources are detailed below.

#### Fuel

During the year we used 35,471 tonnes of natural gas as fuel for the LPG processing plant, 14,909 litres of diesel for vehicle and machinery fuel, 20,547 litres of autogas and 9,393 litres of petrol.

#### Electricity

Electricity consumption for the year was 9,147,700 kilowatt hours.



#### **LOST TIME**

We had no Lost Time Injuries for employees and as a result our Lost Time Injury Frequency Rate (LTIFR) and our Average Time Lost Rate, which provides a measure of the severity of such injuries, remained at zero.

Our LTIFR (including contractors) was 7.2 with one LTI during the year.

Safety statistics are reported to our board every two months and monthly safety statistics, including information on employees and contractors, are also reported to Wesfarmers Energy.

#### **WORKERS COMPENSATION**

There was one workers compensation claim reported, relating to an occurrence during the year, compared with no claims last year.



Making difference...

As part of our commitment to reduce environmental noise from our plant operations, we completed a number of projects based on a consultant's management reports. Our aim is to ensure compliance with the regulations and we have moved closer to achieving this objective.

Specific projects to reduce the noise from major plant items were progressed. Phase 2 and phase 2B, comprising modifications to the gas turbine alternator (Ruston generator) and plant inlet manifold were completed. This work involved the installation of acoustic insulation on ducting and silencers associated with the Ruston generator and acoustic insulation of pipework from the plant inlet manifold to the inlet filter separator, dehydrator discharge lines and the suction and discharge pipe supports on the train two recompressor.

These projects have resulted in noise reductions from the plant of between 37 and 87 per cent.

Noise measurements were carried out to determine the effectiveness of the noise treatments completed. These measurements demonstrate that we are close to compliance with the site boundary noise requirements and noise modelling shows compliance with the residential components of the Environmental Protection (Noise) Regulations, 1997. Further projects to address this non-compliance will be carried out next year.

The scope of work for future noise reduction will be re-evaluated based on the effectiveness of work completed to date. It appears that phases 3,4 and 5 referred to last year may not be required.

#### HAZARD AND RISK

Our plant has been designed to have a very low environmental risk. All products will evaporate if released to atmosphere, leaving no soil or water-contaminating residues.

#### **EMERGENCY RESPONSE**

We have detailed emergency response procedures. They describe the organisation and training of employees and contractors to reduce the risk to personal safety and the surrounding environment in the event of an emergency.

Our procedures were revised during the year to develop an Emergency
Management Plan (EMP), which links into the Wesfarmers Energy and Wesfarmers
Limited Crisis Management Plans. A draft EMP was issued to the Fire & Emergency Services Authority of Western Australia as part of our licensing requirements as a Major Hazard Facility and the formal acceptance of this EMP is anticipated next year.

Four site emergency muster point exercises were successfully carried out to test employee understanding of and compliance with emergency response procedures.

We became the rostered facility to conduct the weekly Kwinana Industrial

Mutual Aid (KIMA) radio testing. These radio testing protocols allow for radio communications to the various industrial neighbours to be verified as operational.

# MATERIALS HANDLING AND STORAGE

We operate under an annual DoIR licence covering storage of dangerous goods. Our propane and butane products and condensate by-product are defined as dangerous goods under the Dangerous Goods Storage Regulations administered by the department. The products are stored in vessels which comply with both Australian and international engineering standards. Approximately 3,500 litres of diesel is stored on-site within bunded areas. Backup supplies of lubricating oil and heat transfer fluid are kept in 200 litre drums in a bunded oil storage area.

Odourant is pumped directly from sealed iso-containers. The empty containers are returned to the supplier for reuse, eliminating any residual odourant disposal requirements.

Liquid nitrogen is stored in an insulated vessel and is used for clearing LPG from the export pipework following completion of exports. An additional liquid nitrogen vessel is located at the LNG plant for use in the production process. LNG product is stored in an insulated vessel at the plant.

All of these storage areas meet legislative requirements.



Operations Supervisor Garry Tardrew testing the Kwinana Industries Mutual Aid (KIMA) radio in the plant's central control room.

#### **RISK ASSESSMENT**

As part of a proposed project to increase production of LNG, a Quantitative Risk Assessment was conducted and submitted to the DoIR and the DoE and was accepted in December 2002.

#### **EMPLOYEE WELLBEING**

We continued with an employee consultative committee to assist in the development of a Fitness for Work (alcohol and drugs) policy. The draft policy has been issued to site management and will be finalised and implemented next year. We continue to provide an Employee Assistance Programme which offers independent professional and confidential counselling to all employees and their immediate families. We also have a childcare referral service to provide employees with advice about childcare services.

Health and fitness assessments and follow up sessions were also completed this year for employees and long-term contractors.



#### **STAKEHOLDERS**

Our main stakeholders are our employees, regulatory authorities, customers and our local community and the shareholders of our parent company, Wesfarmers Limited.

Employees are encouraged to provide feedback on this report. We conducted a plant tour for a group of customers who operate service facilities along the Eyre Highway. We are also represented on the Kwinana Industries Public Safety Liaison Group which includes representatives from industry, regulatory authorities, local government authorities and the local community.

#### FEEDBACK/COMPLAINTS

Senior management handles any complaints from the community. Three complaints from nearby industries were received during the year related to claimed odourant emissions from the plant and one due to a reported burning rubber smell. We are satisfied that in two of the cases the odours did not emanate from our plant. The other two complaints were both related to a single maintenance activity on the odourant injection facility and involved a release of odourant.

# Priorities for the future

No workplace injuries and LTIFR of zero.

Ongoing identification and control of hazards.

No significant release of hydrocarbons to the atmosphere.

Continued implementation of the noise reduction programme.

Progress environmental site assessment.

Implement Fitness for Work (alcohol and drugs) policy.

Conduct environmental sampling to verify greenhouse emissions.

Two complaints, one from the Kwinana Town Council and the other from the DoE, were received. Both related to a discharge of water containing sand and silt, during maintenance activities at our firewater pond. All of these complaints were investigated and resolved.

We implemented an environmental complaints register to record all such complaints.

#### LIAISON WITH AUTHORITIES

We maintain good working relationships with the DoIR and the DoE through our involvement with regular Safety Report meetings and communications meetings where we discuss our operations.

#### **ACTION GROUPS**

We are a full member of the Kwinana Industries Council (KIC) and its sub-committee the Kwinana Industries Public Safety Group (KIPS), formerly known as the Kwinana Major Hazards Facilities Group.

Member companies maintain a management system for response within the Kwinana industrial area to control emergencies that may arise within the boundaries of a member company site. Member companies have a mutual aid plan to integrate emergency management where appropriate. This plan, which was reviewed and re-issued this year, allows member companies to obtain assistance from neighbours in the event of an emergency.

#### COMMUNICATION

#### Newsletters and reports

Information is provided through the KIC as required. The 2002 Wesfarmers Environment, Health, Safety and the Community Report was available to all employees and circulated to stakeholders.

We are involved in the Kwinana Industries Council Community Information Service which is a public phone-in system, established in partnership with KIC and the Western Australian police service, which enables the community to find out what is happening within the Kwinana industrial area.

#### Website

Our operations are referred to on the Wesfarmers Limited website at www.wesfarmers.com.au.

#### Liaison groups

We continue to be involved in the Kwinana Industries Public Safety Liaison Group. This group allows us to formally consult with state government departments and agencies, local government organisations and community interest groups in matters relating to our operations. We made a presentation to this group during the year to provide information on our operations relating to the Safety Report and this report.

















# Wesfarmers Industrial and Safety

We are Australasia's market leaders in the supply of maintenance, repair and operating products and safety products. With more than 250 outlets we trade in Australia as Atkins, Bakers, Blackwoods, Motion Industries, Mullings Fasteners and Protector Alsafe. Our businesses in New Zealand are Blackwoods Paykels, Packaging House, NZ Safety and Protector Safety NZ. We employ more than 3,000 people.

This is our first contribution to the Wesfarmers Environment, Health, Safety and the Community Report. It differs from the other business units in that we have no previously-set priorities against which to report. Safety statistics are for the last two years only. Our section covers the businesses whose logos appear on this page.

Our three main environmental issues are storage and handling of dangerous goods, management of packaging waste and energy consumption.

We have reviewed our procedures for new products classified as dangerous goods and made changes where necessary.

We are recycling packaging materials at our major offices and distribution centres but there is still room for improvement. Wherever possible we are reusing incoming cartons to pack and dispatch goods to our customers.

To assist in data collection and to improve our knowledge of environmental and safety issues, including energy consumption, we conducted a survey of each of our 231 locations and received 219 responses. We intend to improve this response rate next year.

Our two main safety issues are workplace injuries, in particular those resulting from manual handling, and compliance with our obligations in relation to occupational health and safety.

When constructing new facilities we are taking the opportunity to engineer out, as far as practicable, any manual handling hazards and, in our existing facilities, we are assessing these hazards as part of the risk assessment programme.

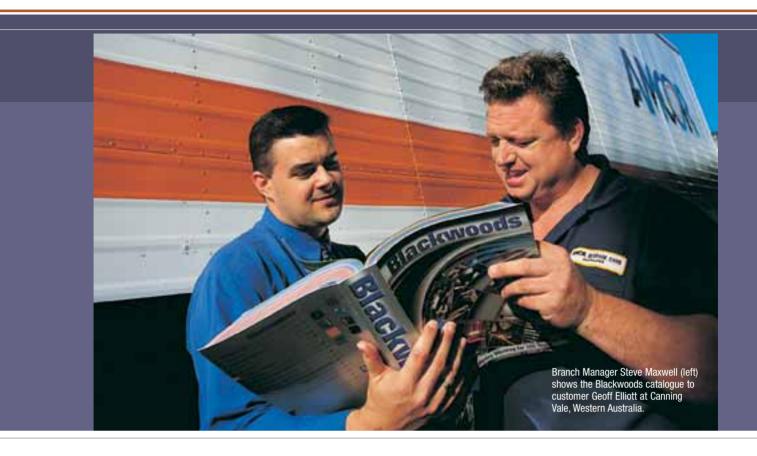
We have a national Occupational Health, Safety and Environment manager and coordinators within each of our operating regions who have specific responsibility for compliance issues.

#### LOST TIME INJURY FREQUENCY RATE\*

# 03 8.6

#### NUMBER OF WORKERS **COMPENSATION CLAIMS**







#### **TRAINING**

All new employees are given a copy of our environmental policy as part of their induction. The induction programme itself has been enhanced to include an overview of the environmental management systems in place and their integration with other business practices.

#### Environmental, Health and Safety

Health and safety is also a significant module within our induction programme for new employees. A review of the module has resulted in the inclusion of additional material relating to:

- occupational health and safety (OHS) policies;
- · risk management;
- · dangerous goods handling and storage;
- · hazard and incident reporting;
- · manual handling;
- · emergency response; and
- injury rehabilitation and management.

Inductions are also carried out for contractors we engage to work in some of our warehouses. Skilled Engineering, a labour hire contractor, is the largest supplier to us for this purpose. Prior to commencing work with us, these

contractors are put through a general induction that is designed and delivered by Skilled Engineering. We also engage a number of contract delivery drivers who have not yet been put through a similar process.

With each of our branches recently being surveyed, specific training needs tailored to each location have been identified and plans put in place to facilitate training.

As a result of the introduction of a new risk management process, safe operating procedures are being developed for specific hazardous tasks and relevant employees are being trained in their use. These procedures relate to a number of areas, including forklift, nail gun and circular saw operation.

In New Zealand we conduct seminars for employees to provide information on topics such as:

- implementing the Health & Safety In Employment Act 1992 in the workplace;
- implementing Health & Safety Regulations 1995 and guidelines;
- critical issues for safety in the workplace;
- managing occupational overuse syndrome and general office safety;
- · noise management at work;
- hazard management practices; and
- accident reporting and investigation.

Our expertise in this area is reflected in the fact that we are able to offer and

charge fees for seminars for external people on such topics. These seminars are typically well attended.

#### **EMERGENCY**

Our major warehouse and distribution centres have an emergency evacuation procedure in place. We are currently assessing the needs of the rest of our business on a risk basis with the intention of ensuring the emergency preparedness of these facilities is commensurate with the risk associated with their activities.

In June 2003, fire warden training was conducted at the Blackwoods Mount Waverley branch with participation from employees based at our other Melbourne metropolitan branches. Emergency evacuation drills were conducted in various locations across Australia and in New Zealand. Five of the 27 branches surveyed conducted emergency evacuation drills.

This year, several first aid training and refresher courses were conducted.

In addition, training in the use of emergency spill kits has commenced in Victoria and South Australia.

#### **COMPLIANCE**

#### Environmental, Health and Safety

We operate across Australia and New Zealand and as a result we need to



# <u>CASE STUDY</u>

# Making difference...

Manual handling is recognised as one of the most significant safety issues confronting our businesses. When we designed our new Blackwoods branch at Mackay in Queensland one of our main priorities was the elimination of manual handling, as far as practicable, from its activities.

The new building officially opened on 23 August 2002 with 2,434 square metres of warehouse and 456 square metres of office space. The warehouse incorporates a central conveyor system which takes products to the dispatch area. At other branches this activity would involve an employee having to manually transport these items.

Detailed planning was also applied to determine where particular items should be stored. The faster moving line items were placed on the shelves closest to the conveyors and the slower moving product at the end of the rows to reduce the distance the most frequently picked items need to be carried to the conveyor.

All shelves can be reached by employees without using ladders or steps, eliminating the need to manually handle items at a height.

We are now realising the benefits of ensuring that safety and productivity were integrated into the planning of this new facility. Not only has this produced positive safety results but there has also been significant increases in productivity. Measured against 12 of our other branches, Mackay is the top performer in the areas of product moved per hour and cost per activity, with no manual handling injuries reported to date.

comply with varying occupational, health, safety and environmental legislation.

We have a number of full-time specialist employees and our safety committees and safety representatives are drawn from our whole workforce. These employees have access to the Intranet and occupational health, safety and environment (OHSE) publications to ensure that the organisation is advised of the latest changes to legislation and other developments. Programmes such as risk assessment, hazard identification, inspections, reporting and investigation, branch OHSE surveys and employee consultation form the basis of the systems of work that, in turn, assist us in identifying opportunities for improvement in OHSE compliance.

In South Australia, branch action plans addressing legal compliance with regulation, codes of practice and Australian Standards are in place.

There were no health and safety prosecutions during the year. We did, however, receive six improvement notices from government authorities involving:

- dangerous goods storage;
- obstruction around fire fighting equipment;
- obstruction to an emergency exit;
- · forklift operations;

- · damaged pallet racking; and
- pedestrian warehouse access.

All of these notices were resolved by the relevant date.

Our largest branch, at Smithfield in New South Wales, has undergone a complete refurbishment with new workstations and computer equipment now installed. This process involved consultation with all relevant employees with regard to required furniture and equipment. Individual training was also conducted for each employee regarding the ergonomic set-up of their work area.

#### LICENSING AND APPROVALS

Relevant individual local government authority licences and approvals are gained when development applications are made for the construction of new sites, or the refurbishment of existing ones. Dangerous goods licences are held by those sites where it is a legislative requirement.

#### **MANAGEMENT SYSTEMS**

#### Integrated Management System

There has been continuous improvement and integration of our internet-based OHSE systems. This process largely involves consulting with key internal stakeholders to ensure that those systems support our business processes. The accident/incident reporting and investigation procedure incorporates requirements for managing both environmental and safety incidents. The hazard and near miss reporting process allows for safety and environmenal reporting and requires senior management review of the identified corrective actions. Our audit and inspection procedures cover both environmetal and safety monitoring requirements.

In the event of a lost time injury (LTI) occurring, reporting to our Managing Director is required within 24 hours and subsequent investigations are required to be completed by the responsible manager, with support from the OHSE coordinators.

In Australia the OHSE system was subject to external scrutiny through the premium discount audit schemes of both South Australia and New South Wales. Our South Australian operations successfully achieved level three status and New South Wales successfully passed audit level three of the process. This allowed us to obtain workers compensation premium discounts in both states.

In New Zealand our OHS management system was subject to its two-yearly audit

by the Accident Compensation Commission. The protective clothing, safety products and graphics factories are all currently accredited to the AS/NZS 4801 Occupational Health and Safety Management Systems Standard. In New Zealand, our protective clothing and safety products factories have current ISO 9000 quality system accreditation.

#### **POLICY**

During the year we reviewed and re-issued OHS, injury rehabilitation and environment policies. These policies document our commitment to provide a safe working environment for our employees, contractors and visitors, as well as conducting our activities in a manner that does not adversely affect the environment. Other policies put in place during the year include those covering drugs and alcohol in the workplace and health assessments.



#### AIR (ATMOSPHERIC EMISSIONS)

#### Dust

In response to concerns raised by employees at our Motion Industries branch in Revesby, New South Wales, testing for asbestos-related airborne dust was carried out by an independent consultant. The results of this testing showed that no asbestos dust was present.

In New Zealand the graphics factory undertook a fume monitoring exercise. This process was part of an ongoing programme and indicated that the extraction systems were working effectively.

#### Greenhouse emissions

Our greenhouse emissions were estimated at 98,553 tonnes of carbon dioxide equivalent. Such emissions mainly relate to electricity consumption and fuel usage in our fleet vehicles.

#### Noise

Our New Zealand protective clothing factory in Auckland undertook a noise monitoring exercise which established machinery noise levels. From the results, strategies were put in place to mitigate noise levels that could, potentially, adversely affect operators.

#### WATER

#### Water consumption

Our main areas of water consumption were use in bathrooms and kitchens. As such we consider ourselves to be a relatively small user of water, but we do not have systems in place to accurately measure usage.

#### WASTE

#### Solid waste

Contractors are used to regularly remove any solid waste from site. We do not have accurate systems in place to quantify the amount of solid waste we produce each year. However, we are implementing waste management plans for each location which will help us in this area in the future. We will investigate the possibility of becoming a signatory to the National Packaging Covenant.

#### Liquid waste

Waste gear box oil generated as a result of gear box servicing at some of our Motion Industries branches is collected and recycled by contractors.

Our canteens have waste cooking oils collected and, where possible, recycled by contractors.

#### Recycling

Offices and distribution centres recycle waste paper, cardboard and packaging material. Whenever possible incoming cartons are reused to pack and dispatch goods to our customers.

Our Mount Waverly steel processing division disposes of steel cut waste through a recycling contractor.

Following the roll-out of new computer terminals, our branches throughout Australia were faced with the disposal of over 2,000 obsolete computer terminals. Equipment re-sellers were identified to take a small proportion of the terminals and the remainder were delivered to a waste contractor who guaranteed 100 per cent recycling of the obsolete equipment.

#### LAND

#### Contamination

We have not conducted any formal assessments in this area but we believe that, due to the nature of our business activities, land contamination should not be a significant issue for us.

#### **RESOURCE USE**

#### Energy

Within our Australian operations the most significant energy resource used is electricity. We intend to enhance our data collection processes to enable us to include information from our New Zealand business in future reports.

#### Fuel

The total consumption of fuel by our own fleet of vehicles within Australia this year was 1,537,331 litres of petrol and diesel.

#### Electricity

We estimate that we used approximately 13,534,001 kilowatt hours of electricity.



#### **LOST TIME**

Our Lost Time Injury Frequency Rate (LTIFR) was 8.6 (compared with 10.5 last year) and, during the year, there were 52 LTIs. These statistics include labour hire contractor hours and injuries. Comparable statistics are not available for the years prior to the Wesfarmers Limited takeover of Howard Smith Limited in August 2001.

Our Average Time Lost Rate, which provides a measure of the severity of such injuries, was 12.4 (compared with 14 last year). These statistics include contractor hours and injuries.

Safety statistics are distributed and discussed within management teams each month and are reported to our board every two months.





Warehouse Team Leader Marcel

Moussa using an order picker at

Distribution Centre, Smithfield,

height at the Blackwoods

New South Wales.

#### Emergency response

We have a Crisis Management Plan in place designed to respond to a wide range of possible emergencies. Our Managing Director and Chief Financial Officer are heading a team working on the construction of a business continuity plan.

#### Materials handling and storage

Material handling involves the unloading, unpacking and storage of products of different dimensions and weight. This issue is considered when upgrading or building new facilities with the intention of eliminating or reducing, as far as possible, the need for manual handling. Also, as part of the risk management programme that is being rolled out, manual handling tasks at our existing faciltities are being identified, their potential risk assessed and appropriate corrective actions implemented. A range of mechanical aids for material handling are available, the most common being forklifts. Storage systems include conventional warehouse storage shelving, pallet racking for bulky goods and dangerous goods stores with bunded floors, placarding, ventilation and intrinsically safe lighting.

### WORKERS COMPENSATION

There were 152 workers compensation claims reported, relating to occurrences during the year, compared with 162 last year.

#### HAZARD AND RISK

#### Programmes

An OHSE branch survey was conducted by 219 of our 231 branches in Australia and New Zealand. Process and/or task risk assessments have commenced in each Australian region. These are being facilitated by the OHSE coordinators in conjunction with branch and regional managers. Newly created "hazard/near miss" reporting booklets have been distributed throughout Australia. A procedure, with supporting tools for OHSE audits and inspections, has also been implemented. In New Zealand, hazard registers identify potential as well as existing hazards and monthly inspections (using checklists) provide a means of documenting new hazards. These are then discussed and corrective actions determined at health and safety committee meetings.

# Risk assessment

Risk management procedures have been introduced to identify OHSE hazards and to assess their potential risk. Some assessments have already been completed with control measures identified and

prioritised. The OHSE coordinators have developed implementation plans to assist local management to extend this initiative to remaining branches.

#### **EMPLOYEE WELLBEING**

The wellbeing of employees is very important to us and policies have been created to assist in areas such as:

- health assessment;
- smoking;
- · drugs and alcohol; and
- equal opportunity.

We conduct health assessments to assess an employee's fitness to perform specific work activities and to ensure pre-existing medical conditions and/or disabilities do not compromise the health and safety of themselves or others.

We have an Employee Assistance Programme available externally through Occupational Services Australia. This service is confidential and free to employees and members of their immediate families. It provides professional counselling in areas such as work problems, relationship and/or family difficulties, alcohol or other drug abuse, grief and gambling problems.



#### **STAKEHOLDERS**

Our major stakeholders are our employees, customers, suppliers, regulatory authorities and the shareholders of our parent company, Wesfarmers Limited.

Our Blackwoods business currently conducts customer service surveys for both regional customer service centres and a number of major contract customers.



The customer service centre surveys ascertain service levels across the broad customer base and are conducted by an external provider with a random selection of customers.

They are carried out as part of an annual contract review process and are only implemented after consultation with and agreement by the customer.

#### FEEDBACK/COMPLAINTS

Our branch survey did not reveal any complaints during the year.

#### LIAISON WITH AUTHORITIES

Our Blackwoods branch in Canberra participates in the "ACT WorkCover Make a Difference" programme. This involves our employees travelling to construction sites with WorkCover and assisting in the education of employees in the construction industry regarding choosing and maintaining appropriate personal protective equipment.

#### COMMUNICATION

#### Newsletters and reports

We have a well-established monthly in-house newsletter "WISBANG" that is distributed to our employees and aimed at keeping our people informed regarding all key areas of business performance, including occupational health, safety and the environment.

Internal monthly statistical safety reporting to the management team has been enhanced to include more detailed information on accidents, hazards and near misses. Our "lessons learned" procedure allows us to share the learnings that arise from any OHSE incident investigation, or hazard report, with all of our employees.

Our Intranet site makes our OHSE policies and procedures available to all employees.

#### Website

Our internet sites provide direct access for our customers to the material safety data sheets relevant to the products that we supply.

Information about our operations is available electronically at

www.blackwoods.com.au www.blackwoods.co.nz www.atkinscarlyle.com.au www.motionind.com.au www.bakers.net.au www.protectoralsafe.com.au

# Priorities for the future

Improve our safety performance by at least halving our LTIFR each year with a target of zero LTIs.

Reduce the number of manual handling injuries.

Ensure that each of our branches implements an OHSE improvement plan.

Implement the "PeopleSoft" human resources information system.

Improve our data collection procedures to identify opportunities to increase recycling.

Improve the data collection process for this report.

www.protectoralsafe.co.nz www.packaginghouse.co.nz www.newzealandsafety.co.nz and www.paykels.co.nz.

#### Liaison groups

We encourage our employees to be involved in relevant external liaison groups. For example:

- In Portland, Victoria, our Protector
   Alsafe branch manager is president of
   the "Portland & District Safety and
   Health Group". This group promotes
   health and safety in the community
   by exchanging ideas and experiences,
   arranging conferences and discussing
   health and safety matters on local radio.
- In Canberra we are represented at the two-monthly Australian Institute of Safety meetings. These meetings are attended by occupational health and safety professionals from major government agencies, including WorkCover.

#### **COMMUNITY SUPPORT**

During the year we provided support to a large number of community and social organisations. One of the key areas was disaster relief. As a result of the Canberra bush fire emergency over 500 homes were destroyed. Our Protector Alsafe branch in Canberra, with assistance from suppliers Protector Technologies and Ansell, donated over 600 kits with safety glasses, disposable masks, ear plugs and protective gloves. The kits were provided in the space of 24 hours of the bushfire and were used to reduce hazard exposure for people searching through damaged properties.

Our Protector Alsafe branch in Darwin donated safety glasses, protective gloves and dust masks to the Australian Red Cross to assist in the response to the Bali bombing tragedy.

Hundreds of our employees donated blood through company-promoted programmes.

At Christmas, our Smithfield-based employees donated:

- approximately \$2,000 worth of food, toys and clothing to the Salvation Army; and
- an additional \$1,169 to the Westmead Children's Hospital.

We also sponsor community programmes such as:

- SPC share-a-can appeal at Shepparton in Victoria involving donation of goods and services resulting in the cannery supplying a day's production to charity;
- donations to surf life saving clubs and other sporting clubs or functions;
- TAFE programmes; and
- WorkCover initiated education programmes.





# **CSBP**

We are one of Australia's major suppliers of chemicals, fertilisers and related services to the mining, minerals processing, industrial and agricultural sectors. We operate a major industrial complex at Kwinana in Western Australia and other complementary facilities in regional areas and employ more than 500 people. CSBP Chemicals' core products include: ammonia; ammonium nitrate; sodium cyanide; chlorine; caustic soda and sulphuric acid. CSBP Fertilisers manufactures, imports and distributes an extensive range of phosphate, nitrogen and potassium fertilisers, in blended, compound and liquid form.

Our three main environmental issues are reducing effluent discharges to Cockburn Sound, remediation of our former operational site in Bayswater and other legacy waste issues, and groundwater management.

We continued our wastewater recycling programme at Kwinana to reduce contaminant emissions to Cockburn Sound. We committed to the Water Corporation's Kwinana Water Recycling Scheme which includes effluent disposal through the Cape Peron ocean outfall to discharge waste beyond the waters of Cockburn Sound.

We continued our remediation work and investigations in relation to the Bayswater contaminated site and obtained government approval for a Public Environmental Review process as part of the below-ground site remediation.

Groundwater management initiatives included continued voluntary reductions in our extraction licence allocation, extensive investigations and monitoring of groundwater quality under our Kwinana site and the supply of groundwater to Tiwest to allow it to reduce its scheme water use by approximately one per cent of the total of Perth metropolitan surface scheme water.

Our two main safety issues are workplace injuries and the risks associated with operating major industrial facilities.

We focused on a reduction in injuries and the need for all employees to take responsibility for their actions with regard to safety and health. We showed significant improvement this year in workplace injuries, Lost Time Injury Frequency Rate (LTIFR) and days lost.

We initiated new risk assessment techniques, a new incident reporting and investigation system and reviewed business-wide risks and hazards and their management.

## LOST TIME INJURY FREQUENCY RATE\*



## NUMBER OF WORKERS COMPENSATION CLAIMS



#### 2002 REPORT PRIORITIES

OUTCOMES

Halve our LTIFR with particular focus on reducing our all injuries rate.

Our LTIFR for employees was 5.0 compared with 9.7 last year. We successfully reduced workplace injuries from 103 to 49.

Continue to work towards a goal of zero contaminant emissions and particularly in 2002/2003 progress our plans for a nutrient stripping wetland in Kwinana.

Most of our recorded contaminant emissions have reduced or remained the same, however our nitrogen emissions to Cockburn Sound increased. A final design and capability plan prepared for a nutrient stripping wetland in Kwinana.

Continue to work safely and effectively to deal with our historic wastes by 2006.

We treated and/or disposed of significant quantities of acidic and heavy metal wastes and progressed the Bayswater site remediation.

Progress safety management systems for our major hazardous facilities.

We revised our four major hazard facility Safety Reports for consideration by the Department of Industry and Resources, two of which were endorsed and two of which are still under consideration. We commenced development of a formal Risk and Hazard Register.

Manage our groundwater to protect the resource and water quality.

Our groundwater resource use was well within licensed allocations and quality remained satisfactory. The Water Corporation selected us as a "Water Hero" for its water conservation campaign.

Maintain our contribution to the social wellbeing of the Western Australian community.

As a major employer and a major purchaser of goods and services in Western Australia, we continue to have a strong community programme based around our major operations.



#### **TRAINING**

Our training and development coordinator has assisted our business areas in updating a training needs analysis to improve the training required to meet safety, environmental and operational needs. Competency periods have been developed to identify when retraining is required. A matrix is also being formulated to assist the teams in managing training. Our training records are now stored in Sitesafe, our new electronic incident reporting and management system database.

#### **Environmental**

During the year we conducted oil spill training for representatives from our maintenance and emergency response teams to ensure each area was prepared should an oil spill occur. Waste management refresher training was conducted for process areas on our main site at Kwinana in Western Australia. This provided the opportunity to outline our new waste initiatives, discuss our performance in this area and reiterate how waste is to be treated or disposed of.

#### Health

First aid training programmes continue to be operated to meet the specific requirements of our operational staff and regional team. The focus of the training is to ensure that all business units have adequate first aid skills to deliver the initial response should an emergency arise.

Health training is also provided through the monthly safety and health topics, by periodic health and fitness promotion programmes and through the availability of annual medical reviews.

#### Safety

A review of training requirements and existing programmes across the business was conducted, which enabled the development of training matrices for the delivery of safety-based training to all business units.

A safety representative programme has been established to ensure ideas are shared and appropriate training and support is supplied. Safety representatives attended a conference reviewing behavioural-based safety systems.

In an effort to encourage all employees to take responsibility for their own actions, all employees were informed in writing of their safety obligations. Training on basic safety rules and safety tools was conducted by team leaders across the business.

Existing and ongoing safety messages were promoted by the introduction of a monthly topic which was supported by visual aids, signs and information packs distributed to team leaders.

A full day induction programme is undertaken by all new employees. Safety has a prominent role in this induction programme covering areas such as manual handling, first response and general safety information.

Emergency Response Coordinator Andrew Jenner (left) and Environmental Coordinator Daryl Colgan examine one of the safety posters at Kwinana put up around the site as part of CSBP's safety education programme.





Safety and Health Adviser, Rob Burns (left) and Ammonia Plant Operator, Ashley Coulter, practise a confined space entry.

#### **Emergency**

We focus our emergency response function on two main areas - the ability to respond in the case of an industrial or medical emergency at our sites and the stewardship of our products in the community.

Where our products are involved in incidents in the community we have the capacity to provide technical and operational support to our clients and to government agencies. During the year we conducted a number of exercises involving local communities and emergency services agencies.

We also continued the development of operator first response strategies designed to improve the response time in the event of an on-site incident.

Emergency response activation now uses text messaging through the mobile telephone network to provide better flexibility and improved communications. At both Kwinana and our regional operations we maintained strong links with Western Australia's emergency management authorities which are a key part of our response strategies.

#### COMPLIANCE

#### Environmental

A number of laws and regulations apply to our business operations. We reported 13 potential non-compliances during the year:

 Five related to stack testing and results from our sodium cyanide solids plant.
 Testing was difficult due to the limited

- and interrupted production of the plant during commissioning and testing was not able to be conducted three times. In a further two instances, ammonia results were above the limit for the solids stack but below the limit for the total allowable emissions from the production facility including both the solids and liquid plants. The Department of Environment (DoE) acknowledged these events to be part of the commissioning process. We are still discussing the elevated ammonia levels;
- Four related to wastewater discharges from the sodium cyanide solids plant. Two of these related to missed analysis from the solids plant discharge into the containment system which was confirmed to be within licence limits from our containment system monitoring. The other two noncompliances related to discharges from the plant. One of these related to a discharge being outside the pH range which had no impact on the containment system or discharge to Cockburn Sound. The other wastewater discharge had an elevated cyanide level. This wastewater was captured and returned to the plant prior to reaching the containment system. Both of these discharges had no environmental impact. We have made engineering and procedural improvements to the wastewater discharge system. DoE has advised no further action will be taken in relation to the missed analyses and issued a letter of warning in relation to the unplanned discharges to our containment system;
- One related to an oxides of nitrogen analyser on our sodium cyanide plant being offline for a period of time.
   We continue to discuss this issue with the DoE;
- One related to the loss of an analyser at our wastewater monitoring station due to an electrical storm. DoE has advised that no further action will be taken;
- One related to missed groundwater sampling at our Esperance site. DoE has subsequently advised that it has noted this issue and there was no environmental impact; and
- One related to conducting a stack test for the month of April one day late (i.e. 1 May). Two stack tests were conducted in May which were both below licence limits. DoE has advised that no further action will be taken.

#### National Pollutant Inventory (NPI)

Our third NPI report was submitted in September 2002 with the results appearing on the NPI website www.npi.gov.au. The Kwinana Industries Council (KIC), of which we are a member, commissioned a study to assist in interpreting the emission results. The report is available on CD ROM and has been distributed to interested industry and community organisations and will be available on the KIC website (www.kic.org.au) in late 2003.

#### Health

All members of the emergency response team were medically and physically assessed to be fit for this role in accord with the Department of Industry and Resources (DoIR) Standard, Fitness for Emergency Response Personnel.

All new employees and employees transferring within the business undergo a pre-employment medical.

Monitoring for all potentially harmful substances occurs where appropriate.

#### Safety

All operational areas are audited against their safety action plans annually. The results of these internal audits are reported to executive management. External audits of our major hazard facilities occur every 18 months.

We are not aware of any official enquiries, prosecutions or official complaints against us in relation to our occupational safety and health activities.

#### LICENSING AND APPROVALS

All relevant licences, including Waters and Rivers Commission, Environmental Protection, Poisons Act, Dangerous Goods and National Industrial Chemicals Notification Assessment Scheme licences, were renewed. In addition, a number of approvals were sought and received relating to specific projects.

These included the:

- importation of sulphuric acid at the Albany Port;
- production of Flexi N (liquid fertiliser) at Esperance;
- use of a fungicide coating for fertilisers at Kwinana, Albany, Bunbury and Geraldton to assist farmers in the efficient application of fungicide;
- supply of artesian groundwater to Tiwest as part of our Kwinana water resource programme;

- setting of a Public Environmental Review as the level of assessment under the Environmental Protection Act for the Bayswater remediation; and
- export of anhydrous ammonia from Kwinana.

Final waste acceptance certificates for the 2002 disposal of arsenic-contaminated waste to Mt Walton East were not received by June 30 due to the government changing its administration of the site.

We liaised with the DoIR on changes to our dangerous goods licences and related issues. We received approval for the storage of chemicals associated with our ammonia/arsenic groundwater treatment plant. Our four safety reports for our major hazard facilities were revised with two being endorsed, and the other two are under review by the DoIR.

#### MANAGEMENT SYSTEMS

#### Environmental Management System (EMS)

We continue to utilise software to assist us in managing our EMS. Our system is consistent with the international standard ISO 14001. We will consider accreditation to ISO 14001 in the future, based on business needs. The formulation of environmental action plans by each business unit is used as a tool to ensure that environmental risks are identified and addressed and that we continue to improve. These environmental action plans are presented to senior management on a regular basis.

Our EMS identifies the following aspects and impacts as the most important matters for management:

- effluent discharges to Cockburn Sound;
- our Bayswater site and other legacy waste issues; and
- groundwater across all sites.

Our activities in these areas are detailed in the relevant sections of this report.

#### Quality system

We maintained our certification to AS/NZS ISO 9001:2000 for the chlor alkali and ammonium nitrate processes. This involved two satisfactory external audits. We also maintained an internal audit programme on our Quality, Safety and Environmental systems. We conducted 15 internal audits during the year.

Our continuous improvement focus under our quality system resulted in the introduction of bronze valves at the chlor alkali plant to reduce the potential for corrosion and the need for maintenance. All of the chlorine drums and 75 per cent of the chlorine cylinders have had bronze valves fitted. The remainder of the cylinder valves will be replaced as they are returned over the coming year.

Our Kwinana laboratory continued to foster a culture of continual improvement. The auditing programme with other laboratories to assist in benchmarking continued during the year with audits conducted with two neighbouring companies. In addition, our laboratory was audited to assess conformance to AS2243 - Safety in Laboratories. Opportunities for improvement were suggested with 12 prioritised as urgent of which all are being actioned. Two safety incidents during the year have resulted in the construction of a new gas compound to meet AS 2243.10, and the introduction of a mechanical device to assist with bore sampling.

The laboratory continued to maintain accreditation by the National Association of Testing Authorities (NATA). All conditions resulting from the audit have been met except for one that is being addressed over the next 12 to 18 months in association with the introduction of a new NATA standard relating to measurement uncertainty (AS/ISO/IEC.17025 1999).



Manager, Quality Systems, Santa Zanotti, and Emergency Response and Site Services Coordinator Ray Chittenden, both members of the Incident Control Team (ICT), participate in an emergency scenario practised regularly as part of the ICT.

#### Safety Management System (SMS)

The past year saw the introduction of Safety Action Plans (SAPs) which involve all departments meeting critical objectives with detailed deliverables and responsibilites. Most of the plans were audited during the year. This new tool simplified the method by which a number of objectives are met and focused all groups on the delivery of safety.

The introduction of a simple safety recording data base (Sitesafe) has also improved the access of all employees to information regarding incidents and hazards identified in their place of work.

Our programme of developing a formal risk and hazard register is progressing well with a number of large risk assessments being completed this year. The objective is to have the whole business assessed by June 2005 including reviewing our existing assessments in significant areas of risk.

We have four major hazard facilities, as defined under the Worksafe National Standard "Control of Major Hazardous Facilities". These are our ammonia, sodium cyanide, chlor alkali and ammonium nitrate plants and associated facilities. As part of this Standard each of these facilities has a safety report which describes the major risks and how they are managed. These reports are submitted to the DoIR for endorsement and are externally audited on a regular basis. Our ammonia and sodium cyanide safety reports were endorsed last year. This year our revised chlor alkali and sodium cyanide safety reports were also endorsed by the DoIR with structural and formatting changes from previously submitted drafts. We have modified all our safety reports to adhere to this new structure. At 30 June 2003 we were awaiting feedback and approval from the DoIR on our revised ammonium nitrate and ammonia safety reports.

As part of our SMS we conduct Quantitative Risk Assessments (QRAs) for our major hazard facilities. These QRAs are updated when we make significant changes to our processes. For example, an update to our QRA occurred as part of the approval process for ammonia export. To further advance our QRA we have included the risk assessment of miscellaneous pipelines on our Kwinana site - pipes that traverse our site but belong to others. In addition we have initiated a re-assessment of the cumulative risks from our sites including reviewing the potential domino effect from any individual possible incident.

As a producer of raw materials for explosives and a range of other potentially hazardous chemicals, we have initiated improvements in security in some high risk areas in response to global terrorism concerns. Access to our ammonium nitrate area has been restricted further and on-site security has been reviewed and upgraded.

#### Other/internal management systems

#### **POLICY**

We have a number of policies that outline our commitment to environmental, health, safety and community issues as part of our business operation. Our environmental policy was reviewed to ensure that it remained applicable and met the general requirements of ISO 14001 and our business needs.

We remain a committed member of the Plastic and Chemicals Industry Association (PACIA) and adhere to the principles of "responsible care" which addresses safety and environmental issues of the global chemicals industry through codes that outline best practice in the areas of

- employee health and safety;
- manufacturing safety;
- transport and storage safety;
- the community's right to information;
- product stewardship; and
- environmental protection.

We reviewed our conformance to these codes through self-assessments during the year with satisfactory compliance. As an active member of PACIA we are represented at board level, on the chemicals council and in various working groups.

We are also an active member of the Fertilizer Industry Federation of Australia (FIFA) which represents manufacturers, importers and distributors of fertilisers in Australia. We are represented at Board level, and on various working groups. FIFA's role is to effectively manage issues that are common to members where an industry-wide approach is likely to be effective. Its three strategic platforms include environment and food safety, import and logistics, and regulatory affairs.

We regularly contribute to the formulation and review of public policy as we currently have representatives on a number of government or industry groups dealing with environmental management and public safety.

# Environmental

We have a quality assurance manual that outlines our methods and practices to sample, collect and manage our environmental information. During the year we initiated a review of this manual to ensure it covered more than just licence compliance and improve its structure. The report will be finalised in 2003 and will then be submitted to the DoE for review.

#### AIR (ATMOSPHERIC EMISSIONS)

Please note that data in this section is generally obtained from point source emissions and will differ slightly from those reported as part of the NPI because of the way in which the NPI uses standard assumptions, in part, to calculate potential emissions we have difficulty measuring or cannot measure. In some areas we do not exceed NPI thresholds and we are therefore not required to report in the NPI.

#### Dust

Dust from all sources reported under the NPI was 237 tonnes. This is based on calculations from the NPI associated with the amount of unsealed surfaces or materials on our sites.

#### Odour

We had nine complaints during the year related to emissions from our granulation plant at Kwinana. The emissions were sampled on a monthly basis and were within all licence limits. We continue to investigate potential causes of the change that can sometimes occur in the persistence and odour of the stack emission and additional testing beyond the licence requirements has been performed. The results for all parameters indicate that no occupational health exposure standards were exceeded.

Our superphosphate fertiliser manufacture plant in Bunbury ceased operating in April 2003. We had three odour complaints related to this plant during the year prior to its closure. We continue to contribute to an odour study with other Australian companies to reduce potential odours from superphosphate rock production.

#### Greenhouse emissions

We generate greenhouse gases from our industrial processes (principally our ammonia and nitric acid plants), vehicles and some of the raw materials we use. Nitrous oxide continues to be a significant portion of our total greenhouse emissions. We regularly measure nitrous oxide from our nitric acid and sodium cyanide plants. We also continue to review international research of technological improvements to reduce emissions.

Our 2002/2003 greenhouse emissions totalled 1,282,834 tonnes of carbon dioxide equivalent. This increase from 2001/2002 is due to increased ammonia and nitric acid production and higher concentrations of nitrous oxide from the nitric acid plant. We are continuing to review the concentration increase with our technology supplier.

As part of our membership of the Commonwealth Greenhouse Challenge programme we submitted our 2001/2002 report during the year which reported 787,000 tonnes carbon dioxide equivalent emissions. This is higher than the 702,000 tonnes mentioned in this report last year because we reviewed our database and recording systems after publication to take account of suggestions contained in the external verification of our 2000/2001 Greenhouse Challenge Report. The 2001/2002 report received a satisfactory external audit from the same auditor.

#### Noise

We are a member of the Kwinana Industries Council (KIC) noise management group and the Northeast Rockingham Noise Reduction Group. We received one noise complaint during the year which could not be substantiated as being generated from our site. We continued to conduct regular noise surveys and they showed that last year's reported improvements had been maintained.

#### Other emissions

Oxides of Nitrogen (NOx)

We continue to operate within licence limits for emissions of oxides of nitrogen (NOx) from our sodium cyanide and nitric acid plants. The NOx analyser in the sodium cyanide liquid plant was offline for a period of 69 hours due to an instrument failure during May 2003. The plant was operating steadily during this time with other parameters confirming that emissions were also steady. We were just below our licence limit of 90 per cent availability (86 per cent) and we have reported this to the DoE.

#### **Particulate**

Our ammonium nitrate particulate emissions from our prilling plant were below licence limits for the dryer, predryer and tower stacks (licence limits of  $0.35g/m^3$ ,  $0.25g/m^3$  and  $0.25g/m^3$ 

FIGURE 1: PRILL PLANT STACK EMISSIONS (GRAMS PER CUBIC METRE)

	Jan-Jun 96	96/97	97/98	98/99	99/00	00/01	01/02	02/03
Tower	0.012	0.014	0.013	0.021	0.024	0.028	0.015	0.020
Predryer	0.453	0.235	0.177	0.132	0.080	0.186	0.117	0.114
Dryer	0.336	0.363	0.253	0.138	0.168	0.127	0.145	0.094

respectively) (see Figure 1). We continue to investigate technological options for reducing emissions from this plant. Progress on emission management is discussed with the DoE on a regular basis. We did not complete the emission modelling discussed in last year's report, but this will be conducted next year.

#### Sulphur Dioxide

We no longer manufacture sulphuric acid at any of our sites. Our Albany and Kwinana sulphuric acid plants were demolished during the year and our Esperance plant is expected to be demolished by 2006. Sulphuric acid is imported into Kwinana for the production of superphosphate fertiliser and use in various industrial applications.

#### Chlorine

Our chlor alert monitoring system was activated 113 times during the year. These monitors are situated throughout the chlor alkali plant and sound an alarm when chlorine is detected (they are set at levels well below that at which health can be impacted). Due to the sensitivity of these meters the chlor alerts can often be caused by normal operating conditions and preparation of equipment for maintenance. We continue to work with the DoIR to upgrade the plant to meet containment standards that were introduced several years after the plant was constructed.







Demolition of the 92 metre stack at the sulphuric acid plant at Kwinana.

#### WATER

#### Consumption

During the year we continued to communicate with neighbouring industry and the Water Corporation (WAWC) to finalise details relating to the Corporation's Kwinana Water Recycling Project. The project will reduce industrial use of scheme water through reuse of treated water from the Corporation's wastewater treatment plant at Woodman Point. This initiative will release a significant amount of water for use elsewhere in the Perth metropolitan area. In addition, when fully operational, the project will enable us to cease contaminant discharges to Cockburn Sound with the exception of rainfall events, maintenance or unusual



FIGURE 2: ANNUAL TOTAL EXTRACTION KWINANA WORKS (MEGALITRES)

99/00	00/01	01/02	02/03
Volume extr	acted 984	1,867	2,756
• Licence limi 5,760	5,760	5,760	5,760
•	•	•	-
			•
•	•	1	1

conditions. The plant should be completed in 2004 and the ocean discharge of industrial emissions (relocated from Cockburn Sound) with the existing WAWC waste water effluent, will be assessed by the Environmental Protection Authority (EPA) in 2003.

Our use of scheme water has continued to decrease over recent years through the application of reuse options on-site and with neighbouring industry. Our efforts were recognised by the Water Corporation when we were selected to be a part of their "Water Hero" campaign during the year as an example of a company that has improved management of water.

We extract groundwater from the Tamala (superficial) and Yaragadee (sub-artesian) aquifers.

During the year we gained approval to send sub-artesian water to neighbouring industry to replace the use of scheme water in their processes. Hence our extraction of sub-artesian groundwater has increased with net benefits in a reduction of scheme water from our neighbours (see Figure 2). When the water recycling project is fully commissioned in 2004 our joint efforts with other industry should redirect two gigalitres per annum back into the scheme water system, compared to water use in 1999.

#### Discharges to surface and groundwater

Activities on all our sites are focused on minimising discharges to surface and groundwater which we continue to monitor at all sites.

Our Bunbury site continued to reuse wastewater within the plant and for irrigation purposes. There were no discharges to the Preston River. We continue to monitor the Preston River upstream and downstream of our site.

Our contaminant discharges to Princess Royal Harbour from our Albany site remained low. Nitrogen levels decreased slightly from 2,510 kilograms (kg) last year to 2,412kg this year. Phosphorous remained below 100kg as it has been for the past five years. Fluoride levels reduced from 358kg last year to 285kg this year. We continue to explore options to reduce our discharges to Princess Royal Harbour. As part of this investigation we are reviewing the potential for reuse within the plant and we continue to liaise with the Water Corporation and other industries regarding the potential for connection to the reticulated mains sewerage system.

#### At Kwinana:

- discharges of metals have remained low and have reduced from last year with the exception of manganese which increased slightly from 17kg last year to 24kg this year (see Figure 3);
- nitrogen discharges have increased from 30,245kg last year to 38,606kg this year; and
- phosphorus discharges have also increased from 4,986kg last year to 7,252kg this year.

Both the nitrogen and phosphorus increases are linked to changes in the production profile of our granulating plant and increased transport of materials around site. All of these emissions remain well below our daily licence limits.

We have emphasised the importance of good housekeeping and are reviewing many activities on-site that may have contributed to this increase as a result of increased transport of product on-site. We also prepared detailed plans for a nutrient stripping wetland that we hope to initiate as a pilot project next year. We have already ordered the necessary seedlings through a community-based nursery.

#### Reuse

Over recent years the implementation of the principles of reduce, reuse and recycle have assisted us in reducing our wastewater discharges and diverting waste from landfill. We endeavour to reuse waste within and between plants.

FIGURE 3: HEAVY METAL DISCHARGES TO COCKBURN SOUND (KG/YR)

	98/99	99/00	00/01	01/02	02/03
Arsenic	382.0	1,232.7	11.9	5.9	4.6
Copper	2,030.5	333.8	102.6	5.7	1.4
Manganese	158.0	237.3	98.7	16.9	24.5
Molybdenum	623.5	525.7	145.2	3.4	1.2
Zinc	0.2	470.1	589.3	996.1	862.7

Targets (kg/yr) for 2002/2003 calculated from the Monthly Average Daily Load limit contained in our EP Act Licence were Arsenic 16.4kg, Copper 87.6kg, Manganese 87.6, Molybdenum 365kg, Zinc 1825kg

Our superphosphate plant reuses all the wastewater it produces and with additional engineering changes can now accept wastewater from other areas when it meets process guidelines. Our nitric acid plant collects and stores wastewater generated on start up for reuse within the plant and, whilst running, any wastewater produced is directed to the granulation plant for reuse. Approximately 10,000 kilolitres of water were reused this year.

#### WASTE

#### Solid waste

We continued to reduce our waste stockpiles. Our initiatives during the year included:

- removal of neutralised fluoridecontaining residues from our Bunbury superphosphate plant to an approved landfill;
- supplying Alcoa with 6,800 tonnes of gypsum for reuse as a fertiliser on their rehabilitation areas and for treatment of bauxite residue;
- using sulphur filter residues from our former Kwinana sulphuric acid plant at our Bunbury facility for superphosphate manufacture (prior to closure);
- treating and safely disposing of 750 tonnes of lead sulphate waste from our Esperance site;
- recycling of approximately 11,500 tonnes of scrap metal from our sulphuric acid plant and disposal of 7,200 tonnes of waste to landfill;
- treating and safely disposing of 3,043 tonnes of acid plant bricks from our Albany site; and
- excavating and safely disposing of 2,934 tonnes of arsenic-contaminated soil from the area of our decommissioned ammonia plant at Kwinana.

A revision of the EP Act Controlled Waste Regulations occurred in the latter half of 2002/2003. We contributed to the public review of the proposed changes. After the new legislation is gazetted, we will modify our waste procedures to reflect the new requirements. Next year we will be initiating an audit programme of disposal sites where we send our wastes.

We are an active member of the KIC Sustainability Group. This group is reviewing the potential for synergies between industry in the areas of waste and energy to harness potential improvements

in efficiency and contribute to the sustainability of the region. The waste management group has conducted interviews and surveyed local industry on waste production, recycling and disposal with a view to improved interindustry coordination.

During the year we submitted our cleaner production action plan as part of our commitment to the Western Australian Centre for Cleaner Production. This plan outlines our objectives and projects in implementing the principles of cleaner production in our organisation. The plan is available on the Western Australian Sustainable Industries Group website www.wasiq.curtin.edu.au.

#### Liquid Waste

We reuse and recycle a number of liquid wastes, including wastewater referred to earlier in this report, on site. Disposal of liquid waste off-site is often due to cleaning of sumps and drains or the result of a pump failure. All waste treated and disposed of is done in accordance with regulations and our licences.

#### Recycling

We have a number of programmes on site which involve recycling and reuse of office waste as well as drums, batteries and metal. During the year we recycled 187 tonnes (compared with 392 tonnes last year). Last year's figure included 232 tonnes of scrap metal recycling from a demolition of a section of our old ammonia plant. This year, and in future years, recycling from demolition projects will be included in the solid waste section. Waste disposed to landfill increased from 338 tonnes in 2001/2002 to 447 tonnes this year.

During the year we implemented a hard hat recycling initiative. The hard hats will be reprocessed by a Western Australian manufacturer to produce road bollards and other plastic items. An upgrade to computers at our Kwinana site was initiated in June 2003. We reviewed the waste generated from this project and implemented polystyrene recycling. Polystyrene is compacted and reused. Cardboard was collected as part of our on-site recycling collection system. All workable computers will be sent to a company for recycling.



# lan Hansen, General Manager, Chemicals Business, (right) with a group of stakeholders during a tour of the ammonia plant before the stakeholder forum held at Kwinana in June.

# Making difference...

In June 2003 we organised a stakeholder forum to review the draft of our 2002/2003 environment, health, safety and community report. This initiative was part of our improvement plan developed in consultation with SMEC, the independent verifiers of this report to enhance the level of stakeholder input and feedback on the report.

The objectives of the forum were to seek input on stakeholder expectations of this public environmental reporting process and assess the proposed content of the 2002/2003 report for feedback on the ability of the report to meet those expectations. A complementary objective was for us to explain our performance against the various elements in the report and indicate where continuous improvement was required.

Over 40 representatives from the community, our neighbours, suppliers and government agencies attended. We received useful feedback on the structure and content of the report. The attendees will receive a response to their comments prior to the publication of this year's report and a copy of the final report will be sent to attendees.

During the forum issues either related to our activities, outcomes or structure of the report and full responses were provided. Senior representatives from Wesfarmers were present to hear the commentary, respond to it and accept it for consideration in future reports. The attendees were able to critique the actual data and trends to be included in this report following presentations from our key staff which in turn allowed us to make some amendments to the manner in which information is provided.

Amongst the comments made was the need to consider public safety and security management and to explain how we respond to complaints. Information on these two issues have been included in the report. We will repeat this endeavour in 2004 for the 2003/2004 report.

#### LAND

#### Flora and fauna

We continue to be a member of the Feral Pigeons Control Group and during the year we continued to bait and cull pigeons at our Kwinana site and reduce potential food sources.

Our Wellard Road site at Kwinana was impacted by a severe wildfire. We have almost completed our negotiations with the Department of Conservation and Land Management for most of the site to be managed in accordance with the surrounding conservation lands. We are continuing our groundwater monitoring on and off the site and have identified no environmental or public health impacts from the site. The most extensive programme relates to finding reuse options for the gypsum stored there. We removed some 6,800 tonnes during the year and have several proposals under discussion.

#### Contamination

During the year we progressed the remediation of our former operational

site in Bayswater in preparation for future land development. The remediation project was referred to the EPA for setting the level of assessment under the EP Act. We are now preparing a Public Environmental Review (PER) document and we hope the assessment will be concluded in mid-2004. However, most of the processes are out of our direct control. Copies of our completed submissions will be made available on our website (www.csbp.com.au).

We have committed ourselves publicly to fully remediating the site to make it suitable for future industrial/commercial land use. The PER will contain several potential remediation techniques which will probably be used in some combination through the project. Our preferred method for the majority of the site is to reuse the iron cinders that form most of the waste. We are reviewing several potential options. It will be our most significant environmental project for several years.

We acknowledge that our handling of this issue has attracted criticism during the year. We believe this to be unwarranted. Extensive studies by us and various

government agencies over many years, including studies completed in 2003, have detected off-site groundwater movement, but no discernible environmental or public health effects from the site.

We have disclosed this contamination in previous reports and have never wavered in our commitment to fully remediating the site. Since 1986 we have removed about 12,000 tonnes of waste and from 1998 we have spent more than \$5 million on waste removal and preparation for the final remediation work. During the year we conducted an extensive survey of domestic bores in the area of our site and found only one that was negatively impacted by contamination potentially from our site. We have agreed in good faith to relocate that bore.

We publicly committed to full release of our consultant's report on the groundwater contamination under our site. We delayed publication because we believed that to publish it before we had had the opportunity to test domestic bores in the vicinity might have caused unnecessary alarm among nearby residents.

As the PER process moves forward in 2003/2004 there will be extensive community consultation around our plans and activities. A community information bulletin has recently been published as part of this consultation and a copy is available on our website.

New legislation addressing contaminated sites is progressing through parliament and is expected to be gazetted next year. We have a number of sites which are potentially contaminated from past practices and next year we will be initiating an assessment programme to allow classification of our sites under the new legislation.

We have progressed on assessing our historic waste disposal sites at our Esperance works and the site is now in our historic waste management plan targeted for completion by 2006.

During the year we removed and disposed to appropriate landfill soil which was contaminated with arsenic from the decommissioned ammonia plant at Kwinana.

We received regulatory approval for the Kwinana ammonia arsenic groundwater plume remediation last year and we have progressed with construction of plant during the year. At 30 June 2003 the wastewater treatment plant for the ammonia/arsenic groundwater plume was

still being constructed after some delays caused by technical difficulties related to the saline water under the site. The plant, which will extract, treat and return the groundwater, should be in use by the end of 2003.

#### **RESOURCE USE**

#### Energy

Our operations use energy in the form of natural gas and electricity, most of which can be related to our processes.

#### Fuel

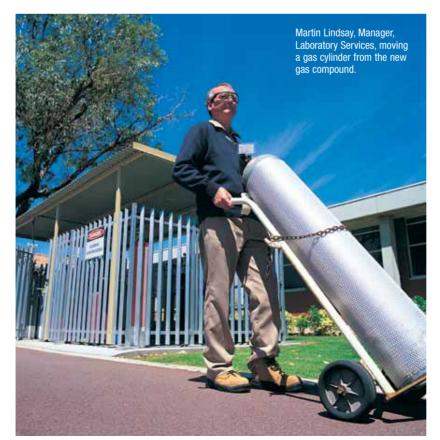
We use fuel in our fleet of vehicles and machinery. We used 242,129 litres of petrol and 89,627 litres of LPG in our fleet of 138 vehicles during the year.

#### Electricity

We used 29,187 megawatt hours of electricity of which a large percentage was generated internally. A proportion of this comes from steam turbines powered by waste heat released from the chemical processes.

#### Raw materials

Our essential raw materials are natural gas, phosphate rock, sulphuric acid, water and the ammonia we manufacture from natural gas.





#### **LOST TIME**

Our Lost Time Injury Frequency Rate (LTIFR) for employees was 5.0 (compared with 9.7 last year) and, during the year, there were five LTIs. Including contractors, our LTIFR was 5.4 (compared with 8.8 last year) and, during the year, there were eight LTIs.

Our Average Time Lost Rate, which provides a measure of the severity of such injuries, was 9.8 for employees (compared with 19.4 last year). There was a major improvement in the number of workplace injuries with a reduction from 103 last year to 49 this year.

Safety statistics are reported to executive management each month and to our Board every two months.

#### **WORKERS COMPENSATION**

There were 22 workers compensation claims reported, relating to occurrences during the year, compared with 34 last year.

#### HAZARD AND RISK

#### Programmes

We have commenced preparing a formal risk and hazard register for use in occupational and public safety planning and the first review will be completed next year.

#### **Emergency response**

A number of desktop exercises have been conducted during the year, together with full on-site and off-site training exercises.

Our emergency teams responded to two off-site tanker incidents and attended a number of chlorine leaks in the metropolitan area and regional locations as far away as Broome. Most of these incidents did not relate to our equipment or operations.

#### Materials handling and storage

All raw material and manufactured products are safely stored and transferred around our operations.

With over 2,000 chemicals approved for use, we have embarked on a process of reviewing chemical management within our operations as part of our formal risk and hazard register.

This includes protocols for control of chemicals introduced to the work



Liz Williams, Occupational Health Officer, conducting resuscitation training for a group of staff, at Kwinana.

environment, our chemical approval process, availability of safety data, usage risks and storage. We hold all required licences and permits for our operations.

#### Risk assessment

During the year we further developed our programme of risk assessment. The system now works on two levels. The potential public risk from our major hazard facilities is assessed by the use of Quantitative Risk Assessments (QRAs). The QRA process continued throughout the year and will be completed in 2003. The process of Team Based Risk Assessments continued throughout the year with assessments completed in a number of our large operations and support areas, including the Albany works, the laboratory, the ammonia loading facilities and for many specific projects.

#### Employee wellbeing

Our professionally-staffed first aid centre is the central area for a large number of support services and programmes aimed at improving employee wellbeing. The centre runs a number of special health-focused programmes, such as professional counselling, health awareness topics, fitness programmes and assessments, audiometric testing, immunisations, subsidies for health club memberships, on-site Pilates classes, fitness sessions at the beach and health programmes looking at risk factors.

Employees who do suffer work or nonwork-related injury or illness have access to a full range of support networks to ensure they are provided with an adequate return to work programme.



#### **STAKEHOLDERS**

Our main stakeholders include our employees, customers, suppliers, the local communities in which we operate and the shareholders of our parent company, Wesfarmers Limited.

We acknowledge the community's interest in our operations and we are committed to open communications with our stakeholders:

- we consulted with local governments and regulators on plans for the transport of ammonium nitrate solution to Esperance;
- we presented information to the Kwinana Community & Industries Forum explaining the steps necessary to allow the export of ammonia by changing the equipment on the existing import facilities at Kwinana;
- we participated in the Kwinana Industries Public Safety Liaison Group, which meets in a public forum involving community and regulatory stakeholders, to review public safety issues;
- through the Kwinana Industries
   Council, we supported the creation of
   the Community Information Service,
   a telephone-based service that provides
   access to a range of information
   about industry;
- we are an active member of FIFA and PACIA with participation at Board and Chemicals Council level - this is a key part of our industry leadership in

- assisting to develop new policies and approaches; and
- we organised a stakeholder forum attended by community, government and industry representatives to discuss and provide feedback on our reporting process. This is covered in more detail in the Case Study report on page 64.

As a member of the KIC we facilitate community attitude surveys which provide an insight into the concerns and interests of the local community on an ongoing basis.

During December 2002 we conducted a tour and presentation for local governments and community interest groups in the Kwinana region and provided updates on our operations and environmental improvement initiatives.

During the year we continued our programme of hosting visits by students to various parts of our organisation.

#### FEEDBACK/COMPLAINTS

We received 20 complaints during the year: 17 related to our Kwinana site and three to our operations at Bunbury. Of these complaints, 16 were from external parties and four from employees.

Nine complaints related to emissions from our granulation plant at Kwinana and are dealt with earlier in this report. Of the remaining complaints related to our Kwinana works, six were related to odours of ammonia, one was related to noise and one was related to emissions from our superphosphate plant.

Complaints are recorded in our Sitesafe incident database. We endeavour to ensure that all complaints are addressed as quickly as possible to enable a response to be provided. Complaints relating to odours or emissions most often result in a check of our operating plants and the wind speed and direction.

#### COMMUNICATION

#### Newsletters and reports

We are continually updating information to inform key stakeholders about our business. Several newsletters are produced for both our employees and a number of external audiences.

A report, based on our section of the Wesfarmers Limited 2002 Environment, Safety, Health and Community Report, was distributed to our stakeholders in June 2003 as a means of updating the community on our environment, safety, health and community initiatives and major projects.

#### Website

We maintain a comprehensive website (www.csbp.com.au) providing information about our business.

#### **COMMUNITY SUPPORT**

We support a number of community organisations throughout Western Australia, including:

- major sponsorship of Curtin University's Centre of Excellence in Cleaner Production;
- a number of rural advancement groups and local schools promoting health, safety, literacy development and computer skills; and
- a number of community safety, health and environment projects and apprenticeship and university awards.

#### RESEARCH

As a member of the Australian Minerals Industry Research Association we support research into the safe use and disposal of sodium cyanide, a gold reagent used by the mining industry.

We also support a range of agricultural research programmes, including the measurement of pasture quality with the CSIRO and nutrient research with the Grain Research Development Corporation.

We invest about \$500,000 each year in our own agricultural research activities and about \$70,000 of other research is contracted to external providers.

The underlying aim of this research is to enhance the economic returns of the end user by maximising nutrient uptake and improving plant productivity and quality.

The specific objectives of the work include:

- evaluation of new fertiliser products under field conditions;
- investigation of more effective methods of fertiliser application; and
- generation of data to validate and improve our fertiliser recommendation computer models, based on soil and plant analysis services.

Through our initiatives and continued efforts we strive to reduce the production of waste and our impact on the environment.

# Priorities for the future

At least halve our LTIFR and continue reducing workplace injuries.

Continue projects working towards reducing contaminant emissions, particularly at Kwinana through the Kwinana Water Recycling Plant and a planned nutrient stripping wetland.

Obtain endorsement for our four revised safety reports for our major hazard facilities.

Continue to work safely and effectively to deal with our historic wastes by 2006.

Increase the use of recycled water and contribute to reduced scheme water use in Kwinana.

Maintain our contribution to the social wellbeing of the Western Australian community.







# Sotico

We produce hardwood sawn timber at Deanmill, Yarloop and Collie in Western Australia's south-west and operate timber processing plants at Manjimup and Welshpool. During the year our Pemberton karri sawmill and Forest Harvesting Operations were sold and we are in discussions with other parties about the sale of the remaining assets as we move towards exiting the hardwood forest products industry. In October 2003 we sold our pine treatment plant at Mundijong. We employ about 300 people.

Our three main environmental issues are land contamination, hydrocarbon product storage and ensuring compliance with our obligations.

Prior to our sale of the Pemberton site to AusWest Timbers, we agreed with the state government our respective responsibilities for remediating the contamination. We have accepted responsibility for dealing with pentachlorophenol (PCP) contamination arising from our years operating a timber treatment plant on the site. We are considering the best method of remediation based on recommendations from consultants.

Fuel storage tanks at Yarloop Mill and Boddington were removed. Plans are in place to have the Welshpool underground tanks removed when the site closes. Refurbishment of oil storage sheds at all our sites will be initiated progressively to ensure compliance with environmental regulations.

Implementation of our Environmental Management System based on AS/NZS ISO14001 continued with a further two locations (Collie mill and Boddington plantation) commencing the certification process.

Our two main safety issues are workplace injuries and materials handling and storage.

Our Lost Time Injury Frequency Rate (LTIFR) decreased and the total number of injuries reduced for the seventh consecutive year.

Safe working procedures, which are part of our management systems, are regularly reviewed and audited to ensure that they meet current standards and requirements and updated procedures are communicated to our employees.

## LOST TIME INJURY FREQUENCY RATE



## NUMBER OF WORKERS COMPENSATION CLAIMS



#### 2002 REPORT PRIORITIES

OUTCOMES

Progress removal of remaining underground tanks which contain hydrocarbon products.

Tanks at Yarloop Mill and Boddington removed. Plans are in place to have the Welshpool underground tanks removed when the site closes.

Finalise the long term management of the Pemberton contaminated site in co-operation with the state government. Second consultant's report received and under review.

LTIFR of 1.4 down from 1.9 last year.

Aim for zero LTIFR.



#### **TRAINING**

#### Environmental, health and safety

Recognition of current competencies continues to be undertaken for our employees by the Department of Training through associated TAFE colleges. The Recognition of Current Competencies (RCC) Programme aimed at achieving full or partial qualification in the Forest and Forest Products Certificate, Business (Office Administration) Certificate, General Construction Certificate or Certificate in Business was conducted throughout the year.

During the year, 673 individual work instruction training sessions were conducted. These were necessary due to amendments to work instructions, requirement for skills upgrading or as a result of process improvements. There were an additional 501 training sessions not related to work instructions undertaken by our employees. Of the 501 sessions, 206 were under the RCC programme. The ratio of employees (based on employee numbers at June 2003) who undertook training was 84 per cent.

#### COMPLIANCE

#### Environmental

With the sale of our forest harvesting operation on 28 February 2003 we are no longer involved in harvesting of native timber from state forests. A harvesting contractor harvests pine from a plantation we own at Boddington in Western Australia.

Until the sale of the forest harvesting operation, all our state forest harvesting operations were carried out in accordance with the "Code of Practice for Timber Harvesting in Western Australia" and the "Manual of Management Guidelines for Timber Harvesting in Western Australia".

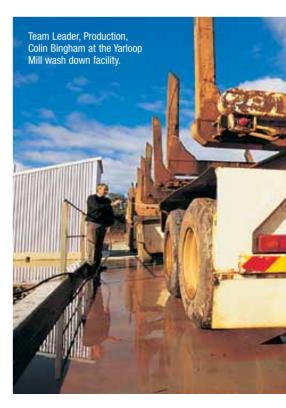
Private plantation harvesting continues to be conducted in accordance with the "Code of Practice for Timber Plantations in Western Australia".

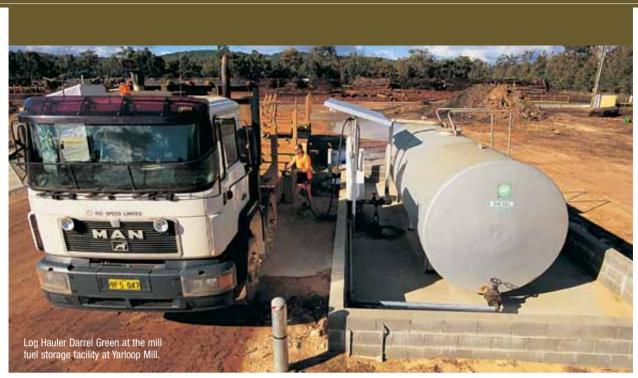
We operated a plant at Mundijong, 45 kilometres south-east of Perth, which uses a CCA (copper, chrome and arsenic) treatment process to preserve timber. The main products from this operation are treated pine rounds used in fencing, vineyards and other applications.

The preservation process involves dried log rounds and timber undergoing a vacuum pressure treatment using the CCA solution. Once treated, the timber is stacked on a concrete pad to facilitate fixation. This process results in the CCA solution becoming chemically bound or

fixed in the timber. Any excess solution is captured and recycled. This process meets Australian Standard 1604-1-2000 specification for preservative treatment for sawn and round timber.

The treatment storage tanks are bunded. This process is undertaken in accordance with our management procedures which conform to AS/NZS ISO 9002 and AS/NZS ISO 14001.





In October 2003, we sold the Mundijong Treatment Plant.

The government's 10 year Forest Management Plan to apply from 2004 has not yet been finalised. Log supply contracts were conditionally allocated in July 2003 and it is expected that they will be completed by December 2003, when current contracts expire.

Our parent company, Wesfarmers Limited, has announced it is exiting the native forest products industry and negotiations are underway to sell our jarrah sawmilling and processing operations.

# NATIONAL POLLUTANT INVENTORY (NPI)

Our facilities at Yarloop, Deanmill and Collie sawmills, Mundijong treatment plant, and the Manjimup Processing Centre (MPC) have reported under the federal NPI legislation. The emission results for 2001/2002 are on the NPI website at www.npi.gov.au.

#### LICENSING AND APPROVALS

To meet our legal obligations with respect to environmental licensing we hold two Department of Environment (DoE) licences, five Department of Industry and Resources dangerous goods licences, three Water and Rivers Commission (WRC) licences and five Australian Communication Authority (ACA) licences. We have one registration with the DoE, a permit from the Health

Department and a Water Corporation permit to discharge waste water.

WorkSafe Western Australia did not issue us with any prohibition or improvement notices during the year.

No other licensing authorities have issued notices of non-conformance.

#### **MANAGEMENT SYSTEMS**

#### Environmental Management System (EMS)

Our EMS is based on the AS/NZS ISO 14001 standard and contains full documentation of our activities that may impact on the environment, while providing a baseline for continued performance improvement. The EMS continues to be integrated with our existing Quality Management System (ISO 9002). Surveillance audits were conducted at the MPC, the Deanmill, Yarloop sawmills and our head office in Welshpool. These sites maintained ISO 14001 certification.

The audits did not reveal any major issues, however, one minor non-conformance was raised at Yarloop Mill. An action plan has been put in place to rectify this.

We commenced working towards the ISO 14001 certification process for our Collie sawmill and Boddington plantation during the year.

#### **POLICY**

Our environmental policy is available on our website at www.sotico.com.au.



#### AIR (ATMOSPHERIC EMISSIONS)

#### Noise and dust

Noise and dust are issues at our three remaining hardwood sawmills and are carefully managed by supervisory staff.

#### Greenhouse emissions

Greenhouse emissions were estimated at 29,500 tonnes of carbon dioxide equivalent, a reduction of 1,956 tonnes from last year.

#### Other emissions

Pemberton Mill, which was sold in April 2003, continued to work towards the DoE's recommendation of reducing smoke emissions from the waste pit.

#### WATER

#### Consumption

We have no accurate measure of our total water consumption.

#### Groundwater

Several sites have approval to use groundwater from either dams or bores. Groundwater is also used to top up recycling reservoirs.

#### Recycling

The Deanmill, Collie and Yarloop sawmills and the Mundijong treatment plant recycle water from their holding reservoirs back to log stockpiles.

#### Discharges to surface and groundwater

The Mundijong treatment plant, the MPC and the Yarloop and Deanmill sawmills continued to take water samples. These samples are analysed by NATA Certification Services International-accredited laboratories. The DoE continues to receive an annual report on water sampling results from the MPC site.

#### WASTE

The ISO 14001-certified sites have drawn up action plans which focus on reducing waste.

#### Solid waste

Bark removed from logs at our hardwood sawmills and sawdust continue to be sold to various customers for use as garden mulch and potting mix. Most sawdust produced from Collie is sold. Bark and sawdust that is not currently sold is burnt or stockpiled. Some bark from our Deanmill sawmill was sold to a south-west horticulturist for use on avocado orchards.

Bark and pine shavings from Mundijong were sold to garden supply companies.

Our negotiations with a local power producer to take our remaining wastes, and which we reported last year, have not seen any progress towards a successful outcome.

Jarrah residues continue to be sold to Simcoa Operations Pty Ltd at Kemerton, near Bunbury in Western Australia to make charcoal for use in the production of silicon.

#### Liquid waste

We generate waste oil that is stored and then removed by contractors for recycling.

#### Materials recycling

The Yarloop, Collie and Deanmill sawmills separate recyclable waste from non–recyclable waste. Recycling bins are provided and recyclable waste is taken for recycling. Where there is no disposal service, suitable products are burnt, with metal strapping and plastics sent to local authority landfill sites.

Vehicle tyres changed on-site are taken by the supplier for recycling.

#### LAND

#### Contamination

Part of the Pemberton sawmill site, which we sold in April 2003, is contaminated from timber treatment activities carried out by us and previous owners, one of which was the Western Australian government. We have maintained ownership of the freehold land containing the contamination settling ponds. A report on our management of this issue is contained in the Case Study on page 72.

We received site investigation reports from consultants on our Welshpool Processing Centre and the Mundijong treatment plant sites as part of the disclosure process associated with the proposed sale of these properties. The Mundijong report did not identify any significant contamination issues. At Welshpool, while significant contamination was not reported, recommendations were made regarding soil removal and further investigation. These are being considered in the context of the sale process. A conditional offer to purchase the Welshpool site was accepted on 15 August 2003.

Fuel storage tanks at Yarloop Mill and Boddington were removed. Plans are in place to have the Welshpool underground tanks removed when the site closes in 2004. Oil storage sheds at all our sites will be upgraded to ensure compliance with environmental regulations.

We commissioned consultants to carry out environmental assessments of the remaining jarrah sawmills and our Manjimup Processing Centre as part of the preparation for the sale of these locations.

#### Rehabilitation

An area of pine plantation at Boddington that was clearfelled is being leased to the Forest Products Commission for establishment of a blue gum plantation.

#### Resource use

Raw material delivered for use in our sawmills from state forests amounted to 139,430 tonnes compared with 216,177 tonnes in the previous year.

Total native hardwoods used in the milling process reduced by about 35 per cent, or about 76,747 tonnes.

The reduction in the resources we used during the year reflects the voluntary reduction in our intake of native forest logs announced in May 2001 and the sale of business assets.

#### **ENERGY**

Our total energy use was 147,221 gigajoules.

#### Fuel

During the year we used 97,097 litres of petrol, 1,543,900 litres of diesel and 282,506 litres of liquefied petroleum gas (LPG). A reduction in the usage of diesel of approximately 600,000 litres occurred this year.

#### Electricity

During the year we used 21,401,931 kilowatt hours of electricity. A reduction in the usage of electricity of approximately two million kilowatt hours occurred this year.



# Making difference...

Previous environment, health and safety reports have referenced the progress of the investigation of the contaminated land at the Pemberton Mill site.

In April 2003 we sold the Pemberton Mill site. We have however maintained a commitment to remediation of contaminated land caused by processes during our ownership of this site. We have maintained ownership of the freehold land containing the contamination settling ponds.

#### HISTORY

The site was originally leased to the State Sawmills from 1914 until 1961.

Hawker Siddley Building Supplies purchased the site in 1961 and operated the business until 1971 when we bought the site and finally sold it in 2003.

Throughout these periods timber was treated with a number of products to increase the durability of the Karri product. In 1914 the State sawmills constructed a timber treatment plant on the site and operated it until 1948 when it was closed. In 1960 the State sawmills constructed another treatment plant based on a different process utilising pentachlorophenol (PCP). We ceased timber treatment processes in 1987 whilst the site was under our control.

#### IDENTIFICATION

In 1990 we commissioned the first of a number of environmental investigations to identify potential contamination. The results of this investigation were discussed with the Department of Environment (DoE) and a number of containment issues addressed. In 1999 a further study was undertaken to confirm the contamination levels and monitor the effects of the earlier initiatives. Although these initial investigations were limited, they did reveal there was contamination present.

To further evaluate appropriate options for management of the identified contamination issues we engaged the services of URS Australia Pty Ltd environmental consultants. This process commenced in 2002 and the URS report was completed in 2003. Work with URS is continuing with respect to measures available for management and site rehabilitation options.

#### PARTIES INVOLVED IN LATEST INVESTIGATION

Due to the historical ownership of the site by us and the state government, the investigations, which commenced in 2002, are being funded jointly by us and the state government. The DoE, an integral party to this remediation, have been and will continue to be consulted as to the scope of the works.

#### REMEDIATION

From the initial report in 1990 an area of the affected land was fenced to prevent entry onto the contaminated site. The final report, which was completed in late 2002, detailed potential remediation options for the site. This report was also the basis for determining final responsibility for remediation of the contaminated area.

URS have commissioned a Canadian company to undertake trials of a bioremedial process for the treatment of the PCP contamination.

We anticipate a report on this process will be sent to us by the end of September 2003.

URS will submit a recommended remediation strategy for the PCP contamination on the site. We will discuss with the DoE the recommended strategy to get government approval to implement the PCP clean up process.



General Manager, Timber Operations, Max Evans and URS Environmental Engineer Gemma Frame at the contaminated site adjacent to Sotico's former Pemberton Karri sawmill



#### **LOST TIME**

Our Lost Time Injury Frequency Rate (LTIFR) was 1.4 (compared with 1.9 last year) and, during the year, there was only one LTI. Our Average Time Lost Rate, which provides a measure of the severity of such injuries, was 4.0 (compared with 3.25 last year). These statistics do not include contractor hours and injuries.

The number of all injuries reduced by 32 per cent. Since we began focusing on this aspect of our safety performance there has been a reduction of 78 per cent over a seven-year period.

Safety statistics are reported to our Board every two months and to senior management monthly.

#### WORKERS COMPENSATION

There were 59 workers compensation claims reported, relating to occurrences during the year, compared with 77 claims last year.

Workers compensation claims continue to be a focus of management. The number of open claims as at 30 June 2003 was 34, compared with 40 last year, a 15 per cent reduction.

#### HAZARD AND RISK

#### **Programmes**

We maintained our drug and alcohol programme.

#### Materials handling and storage

Safe working procedures, which are part of our management systems, are regularly reviewed and audited to ensure they meet current standards and requirements. Updated procedures are communicated to our employees.

Internal audits of compliance with the stacking and de-stacking work instruction continued throughout the year.

#### **Emergency response**

Each location has an Emergency Preparedness and Response Plan. The locations with ISO 14001 certification have reviewed and upgraded their plans where necessary. These plans were included in their certification audits, which are tested annually.

#### **EMPLOYEE WELLBEING**

Employees who are made redundant due to the state government's decision to cease harvesting of old growth forests continue to be kept informed of available help and assistance from a number of external agencies.

The employee information pack detailing contact names and addresses and other information to assist in finding new work is distributed to employees whose position has been made redundant.



#### **STAKEHOLDERS**

Our stakeholders include our employees, the local communities in which we operate, our customers, suppliers (including the Forests Products Commission), relevant government agencies, various nongovernment organisations and the shareholders of our parent company, Wesfarmers Limited.

We recognise that our most important stakeholders are our people. We are committed to providing a safe and learning environment to reward effort and ensure equal opportunities for all.

We have a number of strong relationships with community bodies, local businesses and charity organisations.

# Priorities for the future

Progress removal of remaining underground tanks which contain hydrocarbon products.

Finalise the long-term management of the Pemberton contaminated site in co-operation with the state government.

Aim for zero LTIFR.

We worked closely with Timber Communities Australia, the Forest Industries Federation of Western Australia and members of the Furnishing Industry Association of Australia during discussions about future log supply.

Over the past year, we supported the Yarloop Progress Group, the Manjimup Horticultural & Forestry Expo and several other organisations with the aim of helping those within the communities in which we operate. We also provide in-kind assistance such as making available our Boddington site for the Telstra Rally Australia.

#### FEEDBACK/COMPLAINTS

We record all environmental complaints. We did not receive any such complaints this year.

#### **ACTION GROUPS**

We are a member of the Forest Industries Federation of Western Australia and the National Association of Forest Industries.

#### COMMUNICATION

#### Newsletters and reports

We produce a regular newsletter for staff, 'Timberlines', which is distributed to all our locations.

#### Website

Our website(www.sotico.com.au) provides comprehensive information on our company and its business units. It displays our range of hardwoods, presents technical information and

delivers comprehensive environmental information.

The site highlights our Environmental Policy statement and our progress in adopting ISO 14001 certification. It recommends other websites to visit with regard to forest management and the benefits of timber and includes a frequently asked questions section.

The website also includes a news section, which provides up-to-date information on our company and the industry.



# Other Businesses

#### AIR LIQUIDE W.A.

We are 40-per cent owned by Wesfarmers with the remaining shares held by Air Liquide Australia Ltd, a wholly-owned subsidiary of Air Liquide of France. Wesfarmers Energy has management responsibility for our head office in Myaree, Western Australia, and our sites at Kwinana and Henderson, south of Fremantle. We make and market a range of industrial, medical, scientific and environmental gases and welding products.

Our two Kwinana locations are engaged in the production, through an air separation unit, of oxygen, nitrogen and argon and the operation of a carbon dioxide recovery and liquefaction process. We have an acetylene manufacturing plant at Henderson and refilling and distribution also occurs at that site.

We employ 74 people.

#### Overview

Unquestionably the highlight of the year, in the context of the issues dealt with in this report, was the achievement in June 2003 of 11 years without a Lost Time Injury.

#### **Environmental**

We have no formal Environmental Management System but a widelydisplayed environmental policy is included in induction material for new employees. Our quality assurance system is being updated to conform to ISO 9001.

We complied with the conditions of our Department of Environment (DoE) licence and other licences covering poisons and supply of ozone-depleting substances.

Our air separation unit operates 24 hours a day but the November 2001 cumulative noise model for the Kwinana area indicated we made only a very marginal contribution to overall noise levels.

Our three sites consume about 101,369 kilolitres per annum of water. No ground water is used and approximately 60 per cent of water taken into the acetylene manufacturing process is separated from the lime waste slurry and recycled.

Solid and liquid wastes are removed by contractors and waste paper is collected for recycling from Myaree and Henderson.

In terms of resource use, our operations consumed about 5,700 litres of diesel fuel, 1,900 litres of liquefied petroleum gas and 80 megawatt hours of electricity.

We recover carbon dioxide from the adjacent CSBP ammonium plant at Kwinana, remove impurities and liquefy the product for sale. Our Henderson site re-sells refrigerant gases to approved industry users.

National Pollutant Inventory reporting is being completed for 2002/2003 in respect of acetone solvent used in the

refilling of acetylene cylinders and energy consumption at the air separation unit plant.

#### Safety and Health

During the year we focused on regular health and safety meetings, internal audits on our safety management procedures and we introduced a Fitness for Work programme.

All employees undergo training in hazards associated with the gases and equipment they are required to handle. Basic workplace first aid training was conducted for selected employees in April 2003.

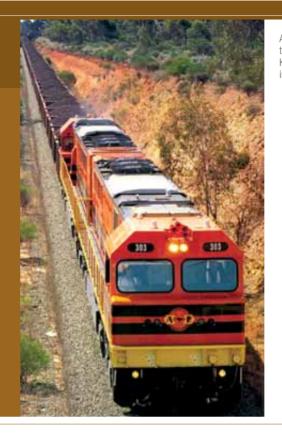
Our emergency management plan was redrafted and we completed a training exercise in June.

We complied with our Department of Industry and Resources licence covering storage of dangerous goods. A hydrocarbon risk audit of the Kwinana air separation unit was conducted and all issues raised have been addressed.

Employees have access to voluntary fitness and health assessments and they and their immediate family members can take advantage of an Employee Assistance Programme.

#### Website

Further information on our operations is available from our website www.airliquidewa.com.au.



An Australian Railroad Group train hauling iron ore from Koolyanobbling to Esperance in Western Australia.

#### STATEWEST POWER

We are a majority-owned subsidiary of Kleenheat Gas, specialising in the design, construction, operation and maintenance of diesel and gas-fired power stations for the mining industry and remote area townships. Our head office is at Canning Vale in Western Australia and during 2002/2003 we employed about 50 people.

#### Overview

We recorded one employee Lost Time Injury during the year after four years with no such injuries. A Fitness for Work programme and an Employee Assistance programme were introduced.

#### Environmental, Safety and Health

Key environmental management requirements and processes are outlined in our Management Plan (Health, Safety and Environment) and we have policies covering these areas.

Issues such as waste removal, dust control and noise management are managed either by us, as the power station operators, or by customers to whom we supply power. We install oil separation equipment to control waste oil and storm water run-off at power station sites.

During the year our power stations consumed more than 46 million litres of

diesel fuel and about 2,000 terrajoules of gas. Electricity consumption at Canning Vale was 144,774 kilowatt hours.

Material Safety Data Sheets are held on-site for hazardous substances and bunded storage areas are provided where required. We use Job Safety Analysis for major tasks to identify all risks and assess potential impact on employees, the public, plant and equipment.

#### AUSTRALIAN RAILROAD GROUP

The Australian Railroad Group (ARG) is a joint venture between Wesfarmers and Genesee & Wyoming Inc of the United States. ARG is the major provider of rail freight services in Western Australia and South Australia. Further information is available at www.arg.net.au.

#### QUEENSLAND NITRATES

Through CSBP, Wesfarmers is a joint venture partner with Dyno Nobel Asia Pacific in the Queensland Nitrates fully integrated ammonium nitrate plant at Moura in central Queensland. It produces ammonium nitrate for the coal mining industry. Further information is available at www.csbp.com.au.

#### **BENGALLA**

Wesfarmers has a 40 per cent interest in the Bengalla open cut coal mine in the Hunter Valley of New South Wales. The mine is managed by Coal and Allied, a Rio Tinto Group Company, and produces steaming coal for domestic and export markets. Further information is available at www.coalandallied.com.au.

#### WESPINE

Wesfarmers and Fletcher Building Limited jointly own the Wespine plantation pine sawmill near Bunbury in Western Australia. Wespine has a long-term contract with the government of Western Australia for the supply of pine logs and produces sawn timber for housing construction, furniture manufacture and other uses. Further information is available at www.wespine.com.au.

#### Verification Statement



ABN 47 065 475 149 ACN 065 475 149

SMEC Australia Pty Ltd Level 6, 12 St Georges Tce Perth WA 6000 Telephone: (08) 9323 5900 Facsimile: (08) 9323 5901

#### **VERIFICATION OBJECTIVE**

Wesfarmers Limited (Wesfarmers) commissioned SMEC Australia Pty Ltd (SMEC) to verify the data and content of this Report 2003 Environment, Health, Safety and the Community (the report), the sixth such report produced by the company. The objective of this verification audit was to ensure statements made within the report were consistent with evidence from which they were derived and were able to be supported by quantitative data wherever possible.

Wesfarmers holds responsibility for the preparation of the report and this Verification Statement represents SMEC's independent opinion. SMEC was not involved in any part of the report preparation.

#### **VERIFICATION METHOD**

The accuracy of the report was verified by randomly verifying a selection of the information presented. SMEC was commissioned to:

- · Identify major anomalies in the report;
- Track the data streams from collection of data to review of the conclusions made from the subsequent analysis and assess the accuracy and appropriateness of the processes used; and
- Review the contents of the report with respect to the significant aspects of the organisation and the issues for the organisation's stakeholders.

The data verification process involved reviewing the reports submitted by the business units then randomly selecting items for which verification would be sought. At each site the processes by which data was collected, stored, analysed and reported were examined to establish the robustness of the processes used and any misinterpretation that may have occurred

as a result. Interviews were held with Wesfarmers personnel responsible for each data set and processes used to derive conclusions reported were demonstrated. Potential for errors in aggregation and interpretation were explored and consistency of approach for the purposes of reporting in this report was assessed.

Each major business unit described in the report was visited by SMEC personnel. The visits took place at an operating site within each business unit to allow processes used in data collection to be observed and verified. Meetings were held with personnel responsible for collating and preparing the report for each business unit. Systems used for data collection were observed and tested for randomly selected data items. Specific focus was placed on verification of the basis for qualitative statements made in the report prepared by each business unit to ensure they could be substantiated. Where possible, effort was made to establish comparability of findings between reporting years and with industry standards. Such comparison would enable the company performance to be benchmarked.

Verification of the reports of the minor units (Air Liquide WA and StateWest Power) occurred remote from the site.

The Curragh Queensland Mining audit was conducted by SMEC's Brisbane office and the Wesfarmers Industrial and Safety audit was undertaken by SMEC's Sydney office. All other business units were audited by SMEC's Perth office. Wesfarmers Landmark was sold between preparation of the report and the audit period. Wesfarmers decided not to include it in the report (although it was a wholly-owned business unit during the review period) because it would have had to negotiate access to documentation held by the new owner of Landmark. Landmark was also responsible for the brief details on Wesfarmers Federation Insurance. The insurance business remains owned by Wesfarmers but is also not included in this report. Wesfarmers hopes to resume reporting on its insurance activities (augmented by a recent acquisition) in the 2004 report.

#### OPINION

The level of sophistication in the data collection systems often reflects the size and age of the business unit involved. Smaller business units tend to have less complex data collection systems. Business units that are relatively new to the company are still developing data collection and

management systems and may lack the systems to collect baseline data. These variations result in some differential between the level of information that can be provided by each business unit.

The verification process used indicated:

- A high level of accuracy in the data presented. However, minor modification of some qualitative statements was undertaken and slight adjustment of data was made to clarify the manner in which it was presented; and
- Datasets were generally traceable and readily identified. During the audit, data trails were easily located and demonstrated and the aggregation and collation undertaken to reach conclusions were logically presented by the personnel responsible for undertaking those activities.

Overall, SMEC is satisfied that:

- The report is a fair and honest representation of the organisation's policies, management systems and performance;
- The numerical data presented in the report is valid and accurate; and
- The written statements in the report present an accurate representation of the results and progress achieved during the reporting period.

#### **GENERAL FINDINGS**

As a result of completing the verification process, the following findings are made:

- Wesfarmers continues to seek a consistent approach to measuring and reporting performance across all business units through striving to adopt best practice reporting standards. The continued implementation of the fiveyear improvement plan developed by SMEC in 2001/2002 and the integration of new global initiatives for reporting of environment, social and economic achievements will assist in this regard.
- The ability of each business unit to identify those environmental and safety elements critical to their ongoing operations is commended and has allowed a complete list of critical elements to be prepared for the first time.
- The ongoing involvement of personnel across the organisation in data collection and management, in addition to those who provided input to the verification undertaken by SMEC, indicates that the business units maintain processes consistent with best practice in reporting. The level of ownership of the report

and the information within it was very high in all instances and demonstrated a commitment to the integrity of the contents of the report. In light of organisational changes that were evident during the verification process, such commitment is to be commended.

 The introduction of new business units into this reporting framework has challenged personnel within those units. In some other businesses, extra responsibilities and loss of corporate knowledge have added to the challenges faced in the reporting process. The ability to meet the standard achieved by others is praised as the commitment to the reporting process remains in place in spite of the demands arising from either having to report for the first time or adjust to change.

The above findings represent a summary of the more detailed findings presented to Wesfarmers.

For SMEC Perth,

Brett Loney

Principal Environmental Scientist and Auditor

BSc (Env. Sc.) PGradDip EIA.

For SMEC Sydney,

Luke Palfreeman

Manager Environment and Planning (NSW)

Senior Environmental Auditor (QSA) BSc, BE, MEngSc MIEAust CPEng

7 October 2003

Australian Competition and Consumer Commission (ACCC) – The federal government's independent competition policy and consumer protection watchdog.

Australian Standards (AS) – National benchmarks for products and services.

**CBM** – Coal Board Medical

CHIMA - Cultural Heritage Investigation and Management Agreement

**CHMP** – Cultural Heritage Management Plan

**Environmental audit** – A programme to evaluate compliance with regulations, systems, programmes and policies.

**Gigajoule** – Unit of energy equivalent to 1,000,000,000 joules.

**Greenhouse gases** – Gases such as carbon dioxide, methane and nitrous oxide which contribute to retention of heat in the earth's lower atmosphere.

**Greenhouse Challenge** – The federal government's programme of cooperation between industry and government to reduce greenhouse gas emissions through voluntary action.

International Organisation for Standardisation (ISO) – ISO publishes internationally-agreed standards covering areas such as quality management (the ISO 9000 series) and environmental management (ISO 14000).

**Liquefied petroleum gas (LPG)** – A combination of, predominantly, propane and butane extracted from natural gas or as a by-product of petroleum refining.

**Liquefied natural gas (LNG)** — Comprising predominantly methane, it is produced from natural gas that has been purified, refrigerated and condensed to liquid form.

**Lost Time Injury (LTI)** – An LTI is any work injury which causes absence for one day or a shift or more.

**Lost Time Injury Frequency Rate (LTIFR)** — The main calculation we use to measure workplace safety performance. It is calculated by dividing the number of LTIs by total hours worked, multiplied by one million. Another indicator, Average Time Lost Rate (ATLR), provides a measure of the severity of occurrences.

National Packaging Covenant – An agreement between the packaging supply chain industry and governments which sets guidelines covering the manufacture, supply, distribution, consumption and recovery/recycling of post-consumer packaging.

National Pollutant Inventory (NPI) — An internet database designed to provide the community, industry and government with information on the types and amounts of certain substances being emitted to the environment. The NPI contains data on certain priority substances which are emitted to the environment. The substance list was determined by consideration of health and environmental risks in Australia. The NPI uses standard assumptions, in part, to calculate potential emissions we cannot measure or have difficulty measuring and, accordingly, data reported to the NPI may differ from point source emissions reported in this report. More information can be found on the NPI website (www.npi.gov.au).

**Overburden** – Unmineralised material overlaying coal deposits or ore bodies.

**Rehabilitation** – Treatment of disturbed areas to achieve a level of stability equal to that which existed before or to an alternative acceptable form.

SMS - Safety Management System

**SOP** – Standard Operating Procedure

