



**ENVIRONMENT, HEALTH &
SAFETY REPORT 1998**



CONTENTS

How we are reporting for 1997/98	1
Environmental, health and safety policies	2
Wesfarmers' commitment	3
Energy – coal	4
Energy – gas retailing	8
Forestry and timber	12
Fertilisers and chemicals	16
Transport	22
Auditor's verification statement	24

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Wesfarmers Limited

is a major diversified Australian public company

Our group objectives

We have interests in fertilisers and chemicals manufacture; gas production and distribution; coal mining; building materials, hardware and forest products; rural services including merchandise and agency business, transport and insurance.

Headquartered in Perth, Western Australia, Wesfarmers' activities are currently focussed in Australia.

Since its public listing in 1984, Wesfarmers has recorded strong growth in assets and profits. Today the group employs about 8,000 people full-time and a further 3,000 on a part-time or casual basis. Wesfarmers has 33,000 shareholdings on its register comprising farmers, institutions, employees and other investors.

Total assets at financial year-end 1998 were \$2.37 billion and the company's market capitalisation was \$3 billion.

The primary objective of Wesfarmers Limited is to provide a satisfactory return to shareholders. In doing this we aim to:

- satisfy the needs of customers through the provision of goods and services on a competitive and professional basis;
- provide a fulfilling and safe working environment for employees, to reward good performance and to provide opportunities for advancement;
- contribute to the growth and prosperity of Australia by conducting existing operations in an efficient manner and by searching out opportunities for expansion;
- respond to the attitudes and expectations of communities in which we operate and place strong emphasis on achieving sustainable development and the protection of the environment;
- act with integrity and honesty in dealings both inside and outside the company.

How we are reporting for 1997/98

This is Wesfarmers Limited's first environment, health and safety report. It reviews performance from a number of the company's operating businesses: coal; gas retailing; forestry and timber; fertilisers and chemicals; and transport. Other company businesses will be included in future reports.

This report focuses on the key issues facing business units, how they were addressed in the year ended 30 June 1998, and the challenges ahead. We hope you are able to use this information as a framework against which to track our improving performance. Data used is the best available at time of publication. The information contained in this report has been prepared by each business unit. We remain open to changing the format and the way in which information is presented in future reports.

We have noted the comments made in the Auditor's verification report. This verification process has been useful, producing a number of positive recommendations which will be taken into account by business units in the management of environmental health and safety and in future reporting.

An electronic version of this report is available at the Wesfarmers web site (www.wesfarmers.com.au).



Environmental, health and safety policies

Wesfarmers Limited is committed to continuous improvement in its environmental, health and safety performance.

Within our diverse group, each business unit has responsibility for developing its own environmental health and safety policies. Each business unit is responsible and accountable for implementing these policies.

Broadly, the policies seek to:

- apply the principles of sustainable development to the resources under our stewardship; and
- provide each employee with a safe workplace by aiming to eliminate all accidents.



Government and community relations

Implementation of the detailed procedures that give effect to these policies requires positive and cooperative relationships with governments and agencies that regulate our businesses. We have an obligation to provide accurate and consistent information and, at the very least, to comply with all laws and regulations. We take particular care to foster and maintain positive and cooperative relationships with local communities and interest groups.

Audits

Implementation of these policies is a high priority, as is performance monitoring and auditing. The Wesfarmers group Risk Management Standards and Guidelines require environmental legal compliance and the monitoring and reporting of environmental performance by each operating business unit. Each business unit reports regularly to its own board on its environmental performance. The Standards also require regular independent audits, as appropriate, and business units are required to periodically review the continuing suitability and effectiveness of the adopted environmental management system.

Board review

As part of its corporate governance process, the Wesfarmers Limited board – through its audit committee – receives annual reports from each business unit on environmental, health and safety policies, practices and performance.



Wesfarmers' commitment to the environment and a safe workplace


Care of the natural environment and the right of employees to expect the highest standards of workplace safety are issues to which Wesfarmers attaches the highest importance. A genuine commitment to both is an essential prerequisite for community confidence in our operations.

Our aim is, as a minimum, to satisfy all environmental standards. Our commitment to workplace safety is to halve the number of accidents each year.

Wesfarmers manages its operations as autonomous business units. Within our decentralised organisation, every business unit has a clear mandate to establish its own way of implementing environmental, health and safety policies and management systems in a manner which best suits its business and the communities in which it operates.

We embrace the need for continuous improvement. New issues will emerge as society's expectations change and we continue to learn more about the environment and the impact of our operations; global climate change is a clear example.

This inaugural environment, health and safety report is an account of the challenges faced by a number of key business units and the progress made in tackling those challenges. Where possible, we try to provide some insight into future challenges and our management approach to deal with them.



MICHAEL CHANEY
MANAGING DIRECTOR



Priorities for the future

Our key performance priorities cover a wide range of issues associated with land, water, air, waste, conservation and people.

Our key targets include:

- rehabilitation of Cardiff Sub-basin areas by 2003;
- zero discharge of dewatering bore water by June 1999 through supply to Power Stations;
- 55 per cent reduction in waste landfill (by 69 m³/month) by June 1999;
- completion of the Environmental Management System by June 1999; and
- an injury-free workplace.

Bengalla coal mine

Wesfarmers has a 37 per cent joint venture interest in the Bengalla coal mine in the Hunter Valley in New South Wales. First coal will be extracted in 1999. No information on this joint venture has been included in this report.

Energy – coal



Wesfarmers Coal, a wholly-owned subsidiary of Wesfarmers Limited, operates the *Premier* coal mine in the Collie Coal Basin, about 200 kilometres south of Perth, Western Australia. The Basin, approximately 225 square kilometres in area, is a centre for power generation and farming. We employ 355 people. In 1997/98, we moved 19 million bank cubic metres (BCM¹) of waste rock and produced 2.8 million tonnes of coal, used mainly for electricity generation.

ENVIRONMENTAL MANAGEMENT

Wesfarmers Coal has an Environmental Management Plan and supporting procedures to comply with legislative and licensing requirements. We are developing an Environmental Management System (EMS) to ISO 14000 standard as part of our continuous improvement process.

Our target is 100 per cent compliance with set environmental limits, and we regularly report key environmental performance data to our neighbours.

A detailed environmental review was conducted during 1997 and findings were compared with a regional mining industry benchmarking study. An independent audit of the EMS will be completed by June 1999.

Wesfarmers Coal is a signatory to the Australian Minerals Industry Code for environmental management.



Land management

Major opencut mining by Wesfarmers Coal commenced in 1970. Since then, 2211 hectares of bushlands have been disturbed by mining and associated activities

(see figure 1). Revegetation commenced in 1975 and 715 hectares have been rehabilitated.

Prior to land clearing, operational areas are mapped to determine jarrah dieback boundaries, quantify flora distribution and identify fauna habitat. Peripheral areas are left as undisturbed as possible. The commercial potential of forest products from the *Premier* area is limited because of previous harvesting. In 1998/99, Wesfarmers Coal will fund a trial to optimise forest product yields from a 156 hectare area. A 140 per cent improvement target (a 25 t/ha increase) has been set.

Wesfarmers Coal has procedures for clearing, topsoil removal/replacement and land rehabilitation to minimise the risk of spreading jarrah dieback. Topsoil is removed, stored and applied in rehabilitation areas. Dieback infected soil is kept separate and only replaced in areas with minimal risk of disease spread. Preferably, topsoil is used directly in rehabilitation to avoid rehandling and optimise biologically active ingredients.

Sections of the mined waste rock contain pyrite (iron sulphide) traces which can oxidise – generating acidic conditions. To reduce this possibility, Wesfarmers Coal pre-tests waste rock samples for acid potential and buries problem material deep in the dump profile. Final dump surfaces are covered with a 1-2 metre blanket of inert material and spread with topsoil ready for revegetation.

Dumps are constructed with in-built drainage and siltation control. Excess water is directed to a central discharge dam for use or release.

1. A bank cubic metre is the volume of dirt in situ.

Land used is returned to stable, compatible bushland – applying local-provenance seed to maintain genetic integrity. Some tree planting is done to augment seeding.



Regular inspection and permanent monitoring plots identify improvement opportunities and ensure successful vegetation uptake. Habitat logs are placed in rehabilitation areas to promote recolonisation. We are committed to control the introduction and/or spread of weeds and feral animals.



Water management

Efficient and safe mining requires dewatering in the immediate pit area and Wesfarmers Coal has provision to abstract up to 15 million litres (ML) per day which is below licence conditions. On average, 1-2 ML/day is required for dust suppression, vehicle wash down and domestic supplies. The remainder is made available to Western Power for the local power stations – the major water consumer in the area – to reduce overall abstraction in the Collie Basin. To facilitate this, Wesfarmers Coal constructed a 15 ML/day capacity pipeline to link with Western Power’s supply line.

Wesfarmers Coal is licensed to discharge water to the environment and has reduced its discharge from 5456 ML in 1994 to 98 ML in 1998 (see figure 3). All groundwater abstraction and minewater discharge is monitored regularly.



The Cardiff Sub-basin of the Collie Basin has experienced reduced river flows since the underground mines ceased supplementing river pools in 1994. This resulted in loss of amenity value for adjacent residents and Wesfarmers Coal has assisted by pumping 98 ML of water into the river during summer as an interim measure to assist the community. This was the only discharge in 1997/98.

Wesfarmers Coal will make good any lost domestic or stock water supplies of neighbours to the *Premier* mine. To date, dewatering has not reduced groundwater levels near private land and dwellings.

Dust management

Dust is mostly generated on dumps and cleared areas during dry spells. This issue is managed by:

- minimising clearing;
- formed and stabilized roads including bitumen sections;
- quick rehabilitation; and
- using water suppression on road and infrastructure areas.

Dust monitoring is only required in dry months. The monitoring records show Wesfarmers Coal is well within compliance. The 1997/98 dust levels were higher than usual but reflect a move of the monitor to a cleared agricultural area that is producing higher ambient levels. We recognise that dust is a source of concern for local residents – particularly its potential to enter drinking water supplies collected from roofing.

Noise management

Mining operations are in a sparsely populated rural area and noise is difficult to manage for normal residential expectations. This issue is complicated by a multiplicity of industrial and mining activities in the region, severe temperature inversions and prevailing winds.

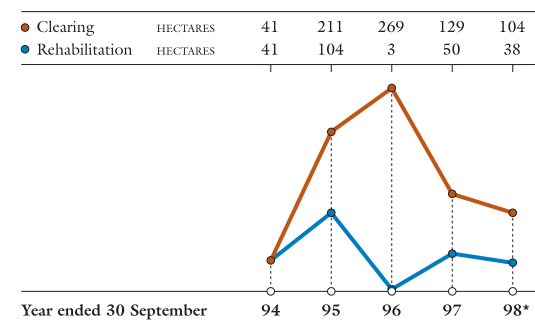
Wesfarmers Coal is committed to reducing noise output by correct maintenance and through an equipment purchasing policy stipulating maximum permissible noise levels. New equipment has been up to 12 decibels quieter than earlier models.

Noise from blasting has been well below the current regulations (see figure 4) and Wesfarmers Coal has offered to provide building condition surveys from an independent assessor to all near neighbours. In the event of a complaint, we fund independent structural assessments as required. No complaint about structural defects has been attributed by the independent assessors to blasting.

Noise, blast and weather monitoring is conducted via online monitors. Despite best efforts, the general mine-noise impacts on adjacent

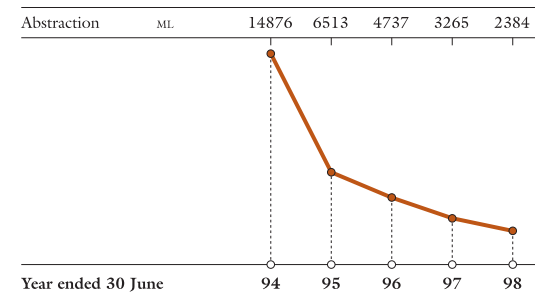


Figure 1: Rehabilitation and clearing



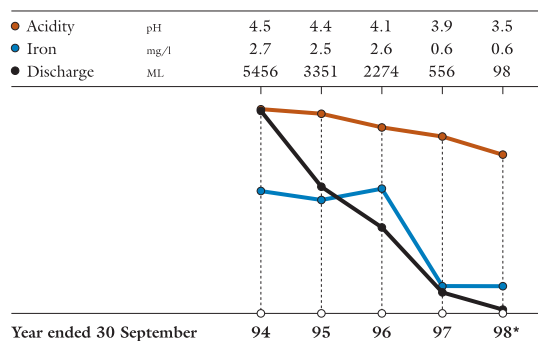
* 1998 figures show nine months to 30 June.

Figure 2: Water abstraction



• Current licence limit is 6000 ML.

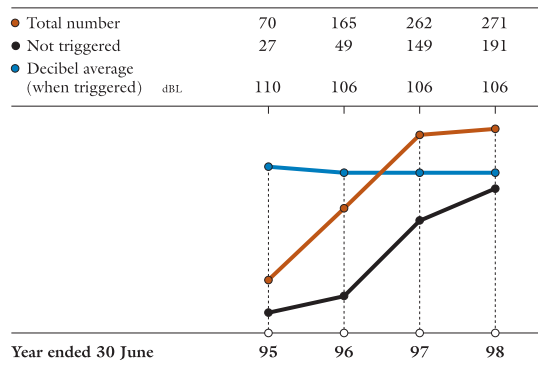
Figure 3: Water discharge



* 1998 figures show nine months to 30 June.

● Iron limit is <3.0 mg/l.

Figure 4: Blasting in Premier region



● Licence limit is 125 dBL
>120 dBL 10 per cent of time.

rural dwellings have, at times, been unacceptable to some residents. In the case of the Shotts community, Wesfarmers Coal has purchased all properties.

Waste management

Major waste items – including used oils, metal scraps, cardboard, paper, tyres, batteries and domestic garbage – are recycled. Wesfarmers Coal is developing a holistic approach to waste and has a major programme underway to “Reduce, Reuse and Recycle”.

The main infrastructure area is serviced for sewage by a treatment plant. Overflow water is used for garden reticulation. The mine operations centre is serviced by a septic system including open pondage.

Water from washdown and maintenance areas is treated by a dissolved air flotation plant before being recycled.

Energy consumption

A diesel-powered machinery fleet dominates Wesfarmers Coal’s energy consumption and emissions (see figure 5). The introduction of large electric shovels and reduced haulage distances will increase the proportion of electricity but it will remain less than 20 per cent of energy requirements.

An energy audit was conducted in 1997 for the Premier mine infrastructure during construction.

Total fuel energy consumption for 1998 was 618,474 gigajoules. A further energy audit is planned for 1999 to set energy-reduction targets.

Greenhouse gas

Wesfarmers Coal has reduced Carbon Dioxide (CO₂) emissions by 45 per cent per BCM equivalent since 1994. Total CO₂ emissions in 1998 were 59,446 tonnes. A programme of tree planting has commenced to achieve reductions in CO₂ by 2002. Subsequent to 30 June 1998, Wesfarmers Coal has signed up for the Commonwealth Greenhouse Challenge Programme.

Employee awareness training

All employees receive environmental training on induction and as required for specific duties. Introduction of training refresher courses is under review. A training programme for the EMS will be designed in 1999.

Wesfarmers Coal has in place a career path training programme for environmental issues and management.

Future

In addition to ongoing operational issues, the major environmental challenge in the next few years will result from the closure of operations in the Cardiff Sub-basin and the rehabilitation of all mined-out areas.

During the 1998/99 financial year, we will:

- complete development of our EMS and conduct an independent audit of this system;
- continue our focus on energy management by auditing maintenance and mining processes;
- give additional focus to noise management and associated community issues, including a review of blasting practices;
- develop an employee awareness and EMS training programme;
- complete infrastructure to make all dewatering bore water available to power stations;
- trial a system for improved forest product recovery in advance of mining;
- establish a time-sequence water management data base for abstraction and discharge volume and quality; and
- continue rehabilitation of mined-out areas.



HEALTH AND SAFETY

Wesfarmers Coal is required to operate in accordance with the WA Mines Safety Inspection Act (and subsidiary regulations) and the Explosives and Dangerous Goods Act for storage and handling of dangerous and hazardous substances. In addition, we are implementing an integrated Safety Management System which is applied across the business. Effective integration is achieved as line managers are responsible for legislative compliance and implementation of the safety system.

Safety management system

Wesfarmers Coal is currently using the RISKMAP system to develop safety standards and promote a safety culture within the business. This system uses a seven-category plan to develop and foster consultation, and hence cooperation, within the workforce.

Training in specifics of hazard control and safe working procedures is conducted to minimise risks to employees and plant.

We have a management system to track training requirements and competency levels.



Key performance indicators

The primary performance indicator is the lost time injury frequency rate which has trended down from 70 in 1993/94 to 39 in 1997/98 (see figure 6). Our primary aim is to have any injury-free workplace.

Other measures include a dramatic downward trend in workers' compensation costs and premiums. The number of claims reduced from 217 in 1993/94 to 82 in 1997/98.

Wesfarmers Coal is now considering total incident frequency rates (which will include hazard reports and near misses) for future performance measures.

Hazard control

A hazard reporting procedure was developed in 1998 to be incorporated in a total incident reporting and investigation system.

Risk assessments have been conducted to review fire prevention and control systems, as well as the assessment of fuel and chemicals storage, to ensure compliance with legislation and licensing requirements. Some minor issues were identified, some related to now obsolete plant. New standards have been developed for all key occupational health and safety issues.



Emergency planning

Our mines rescue team consists of 22 volunteers from across the workforce. Regular training is conducted on dealing with fires, accidents and chemical or fuel spillages using chemical suits and breathing apparatus.

We have an emergency plan that defines roles, responsibilities and actions required to manage an incident. The plan includes testing through mock evacuation events at least annually.

Communication

Wesfarmers Coal's occupational health and safety committee – with management and employee representation – meets monthly to review performance, action safety programmes and make recommendations to management of changes or improvements to the RISKMAP programme.

Future

Further development of the RISKMAP system will occur over the next two years as the programme is fully implemented.

Figure 5: CO₂ emissions by source

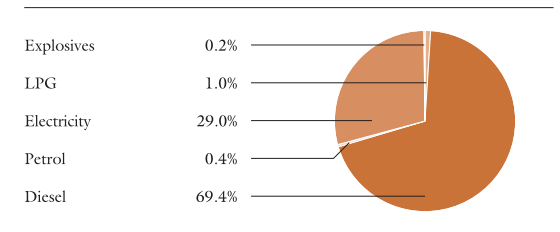
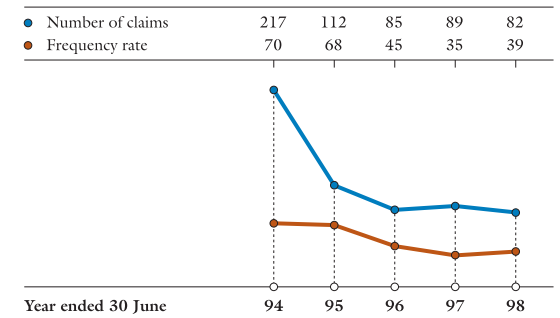


Figure 6: Lost time injury frequency rate and workers compensation claims



Priorities for the future

Our key targets include:

- improve waste management;
- reduce noise levels on tanker equipment;
- expand use of environmentally friendly LPG; and
- achieve zero lost time injuries.

Energy – gas retailing



Kleenheat Gas is a wholly-owned subsidiary of Wesfarmers Limited. Its main business interest is the national retailing of liquefied petroleum gas (LPG) and appliances to domestic and commercial customers. It employs about 800 people operating across Australia through more than 50 Kleenheat gas centres including six regional centres and has an extensive sales dealer network.

ENVIRONMENTAL MANAGEMENT

All Kleenheat Gas regional centres have third party Quality Management System certification. The largest regional operation at Myaree in Perth also has an ISO 14001-accredited Environmental Management System (EMS) which is integrated with Kleenheat's occupational health and safety and quality systems.



The Queensland regional centre operates under an Environmental Management Plan (EMP) which is approved and licenced by the Queensland Department of Environment.

Emissions

LPG emissions occur when hoses are disconnected after a filling operation, or when a storage container is decommissioned for servicing or inspection.

The quantity of LPG emitted in these procedures, however, is extremely small. It is non-toxic, does not deplete the ozone layer or contribute to an increase in greenhouse gases.

Wastes

Water

At Myaree, all oily water waste generated in the workshop, or by washing down vehicles, is intercepted and pumped through an

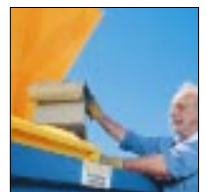
oil/water separator. The oil is transferred to a waste oil tank and the water is discharged to the sewer under government licence. The EMS requires that the performance of the oil/water separator is monitored and that maintenance records are maintained.

Ground water

An initial environmental survey of the Kleenheat Gas facility at Myaree by an environmental specialist revealed that zinc levels in stormwater drainage pits were well below internationally accepted limits – but were higher than background levels. Action was taken to eliminate the main source by changing operating practice and equipment and by removing surface soil from pits.

Re-cyclables

Waste materials – such as paper, cardboard, plastics, tyres, batteries, oil, coolant, rags and oil filters – in the Western Australian operations are all recycled or disposed of under a total waste management programme delivered by Cleanaway. Cleanaway is quality endorsed, operates under various licences and uses licenced sub-contractors.



Public impact

Noise management

Noise levels from operating tankers and delivery trucks and movement of gas cylinders within the Myaree site are monitored by security personnel who are required to make subjective comment on excessive noise in their daily reports. In 1997, one complaint was received from local residents and Kleenheat Gas is working with the local council to informally monitor noise levels.

Kleenheat Gas has made a commitment to reduce noise levels by progressively replacing single cylinder air-cooled auxiliary engines on tankers with either power take-off hydraulic systems, or twin cylinder water-cooled engines. This programme is anticipated to take approximately two years.

Odour management

In its natural state, LPG is odourless. For safety reasons, it is necessary to add a small volume of ethyl mercaptan to give the gas a distinctive smell. This allows people to detect its presence should a leak occur.

Kleenheat Gas recognises that some people find odourised gas offensive and therefore its operating procedures require that due consideration be given to wind direction when performing operations which involve the safe discharge of LPG.

Resource management

Energy use

Energy consumption at Kleenheat Gas consists mainly of fuel consumed by delivery vehicles and electricity for lighting and air-conditioning. The Kleenheat Gas new head office at Myaree was designed to be an energy-efficient building.

Employee awareness

The EMS requires that all employees be trained in environmental awareness. This is maintained by periodic meetings of EMS representatives from different zones of the Myaree site to provide employee input and feedback.

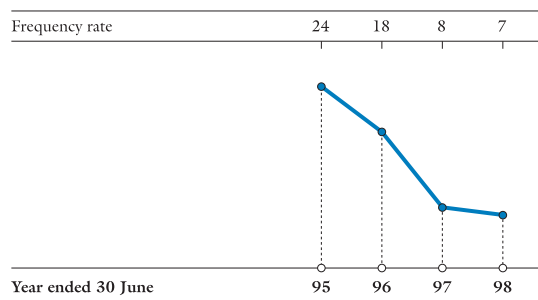
Research and development

Kleenheat Gas is actively involved in a number of environmental research and development initiatives. These include:

- ongoing development of LPG powered commercial and passenger vehicles;
- promotion of flame cultivation which kills weeds by heat, effectively exploding plant cells by converting water to steam, thus removing the need to use pesticides;
- conversion of power generation facilities to use LPG; and
- use of heavy duty gas engines to displace diesel engines in trucks.



Figure 1: Lost time injury frequency rate



HEALTH AND SAFETY

The management of occupational health and safety at Kleenheat Gas is based on a consultative process involving management, supervisors and staff. Our policy details the commitment at all levels to the maintenance of a safe system of work and safe workplace.

Key performance indicators

Personnel safety

The principal objective at Kleenheat Gas is to achieve zero lost time accidents.

The lost time injury frequency rate graph shows a 300 per cent reduction in LTIFR's (see figure 1) from 1994/95 to 1997/98. Safety performance targets are set annually, for all regional centres, and are used as one of the key performance indicators for regional management.

Safety initiatives come from management, employees and external parties, all of who are important to the achievement of continuous improvement in accident frequency rates.



Vehicle safety

Kleenheat Gas operates approximately 180 vehicles – both tanker and cylinder delivery units – across Australia. In 1997/98 these vehicles travelled in excess of 21 million kilometres. No incidents involving personal injury or major damage during transport operations were recorded for this period.

Installation audits and inspection

Bulk storage depots

Kleenheat Gas owns and operates 34 bulk storage depots throughout Australia with capacities ranging from 20 – 1000 tonnes. We also own and operate approximately 17,000 storage vessels located at customers' premises. These vary from 190 kg cylinders, commonly found at service stations and used for filling customer-owned

recreational cylinders, to three tonne storage vessels installed at service stations for autogas dispensing.

To manage all these vessels, Kleenheat Gas has a formal audit/inspection programme in place which ensures that installations are periodically inspected and maintained in a safe condition. Findings are recorded, as required by law. Additionally, drivers visually inspect all sites when making deliveries and any defects are noted for action.

Cylinders

Kleenheat Gas has about 450,000 cylinders in service in domestic and commercial situations. These cylinders are returned for refilling and are subject to inspection before being refilled. Any cylinders that do not comply are rejected for either re-inspection or disposal.



Cylinders that pass re-inspection are processed back into service by one of the six Kleenheat Gas licensed test stations. Cylinders that fail the re-inspection are condemned and either disposed of as scrap metal and recycled, or re-used by re-working into alternative products.

Vehicle inspection and maintenance

A road tanker inspection programme is in place to ensure there is periodic inspection of both the tanker and the vessel. Kleenheat Gas maintains an inspection record as is required by law. Each year, about 70 tankers are inspected for compliance with the Australian Dangerous Goods Code. Any non-compliant items are rectified prior to returning the vehicle into service.

Road-worthiness inspections are performed to coincide with major services, which are related to both distance travelled and the period between services.

The principal contributor to black smoke emission from diesel engines is the fuelling equipment (such as pump and injectors). This equipment is maintained by Kleenheat Gas to the manufacturer's specifications in order to minimise exhaust emissions.

Training

Employees

Kleenheat Gas has a comprehensive training programme in place. This programme ranges from induction to job-specific modules allowing training to be tailored to precisely suit the 'must know' requirements of each job. Training is also given in peripheral modules to address areas such as environmental awareness; a requirement of our EMS.

External

Kleenheat Gas has produced a range of educational manuals supported by video presentations for use in training dealers, forklift operators, service station attendants and the general public in the safe handling, storage and use of LPG.

Drivers

Drivers are responsible for the safe transport and transfer of LPG in a working environment that is mobile and interfaces with the general public. Kleenheat Gas has become a registered dangerous goods training provider.

Other training considerations that are incorporated in the overall training programme include a requirement for fatigue management, and a need to be fit to drive at all times.

Emergency response

Emergency plans have been developed to address:

- internal needs within Kleenheat Gas operations; and
- the external impact which operations may have on customers and the public.

Kleenheat Gas has in place at each branch and depot an evacuation plan with personnel appointed to ensure that the respective plan can be actioned as necessary.

The impact of company operations on the environment, neighbouring communities, or individuals is addressed through a nation-wide emergency communications centre. This centre is operational 24 hours a day and requests for assistance can be made via

a toll free number. The telephone number is prominently displayed on road tanker vessels, static tanks and cylinder labels.

All calls to the communications centre are recorded as a computerised record for reference and, depending on the type or severity of the incident, the monitoring personnel contact either local or national nominated personnel.

Industry safety

Kleenheat Gas has been actively involved for many years in providing technical expertise in the development of industry guidelines through the Australian Liquefied Petroleum Gas Association and, in the development of "AS 1596-Storage and Handling of LPG", the principal industry standard.



Priorities for the future

Our direct environmental responsibilities are the management of industrial sites and compliance with codes of practice covering forest operations with respect both to native forest harvesting and plantation development.

Our key targets include:

- completion of an external environmental audit of all operating sites by 30 June 1999;
- development by 30 June 1999 of an action plan to rectify the Pemberton contaminated site;
- follow-up audit in 1999 of compliance with timber plantations code of practice;
- begin implementation of a company-wide Environmental Management System by 30 June 1999;
- lost time incident frequency rate target of 3.5 for 1998/99.

Forestry and timber



Bunnings Forest Products (BFP) is a vertically integrated timber company encompassing forestry operations, plantation development, timber milling, woodchipping, seasoning and processing. We employ about 1,100 people, most of whom live and work in communities in the south west of Western Australia. The native timber products are distributed in both Australian and international markets.

ENVIRONMENTAL MANAGEMENT

Western Australia's publicly-owned forests are managed by the State government, which determines the level of harvesting and the extent of the reserve system.

BFP is one of a number of companies contracted to the government to provide logging services. We are also a customer of government through the purchase of sawlogs and forest residues for processing.

This report deals with BFP's specific responsibilities that involve our adherence to government codes of practice and management of our industrial sites.

Environmental management system

By 30 June 1999, BFP will have begun implementing an Environmental Management System (EMS) in line with the internationally recognised ISO 14001 guidelines.

A preliminary environmental assessment was conducted in 1998 and a comprehensive independent audit of all operating sites will be completed by 30 June 1999. Significant environmental impacts identified in this process will be evaluated and any required changes to procedures and work instructions will be incorporated into the company's accredited ISO 9002 management system.

Regional Forest Agreement (RFA)

During 1998 the Commonwealth and State governments completed a detailed process of scientific, economic and social impact evaluations of great importance to the long term management of the south west forests. This evaluation was part of a national assessment of Australia's forest estate known as the Regional Forest Agreement (RFA) process. The RFA for the south west forests will be a 20-year agreement - to be reviewed every five years - to provide a comprehensive, adequate and representative forest reserve system and to ensure the continuation of a sustainable timber industry.

Native forest management

Native forest logs are purchased from the Western Australian Department of Conservation and Land Management (CALM) which manages almost two and a half million hectares of publicly-owned forest. A 10-year Forest Management Plan, finalised in 1994 after extensive public consultation, governs CALM's management practices.

BFP has contracts to purchase logs from three main hardwood species, which are native to the south west forests - jarrah, karri and marri. Almost half the karri forest (46 per cent) and one third of the jarrah is located in conservation reserves that cannot be harvested for timber production. Marri occurs within each of these forest types.

Outside the reserves, where harvesting is allowed, CALM's management system requires that the forest is regrown with native species.

The south west forests outside the reserve system are harvested for the production of sawlogs for milling into sawn timber. In the process of obtaining this wood, and in ensuring successful regeneration of the forest, some logs are produced which, because of shape or internal defects, are not suitable for milling.

Rather than burn this material – or leave it to rot on the forest floor – CALM is able to sell these karri and marri logs to BFP for processing at the Diamond mill into woodchips used in making high quality paper. Jarrah is not suitable for paper-making, but jarrah residues are sold to produce charcoal for use in industrial processing.

Timber harvesting

All BFP native forest harvesting operations in publicly-owned State forests are managed by CALM and are carried out in accordance with a code detailed in the reference document “Timber Harvesting in Western Australia”, which is produced by CALM. The code is enforced to the satisfaction of CALM and contains detailed guidelines relating to environmental protection.

The code specifically addresses the procedures required to restrict the spread of dieback disease in the south west forests. These procedures are regularly updated as more is known about this pathogen. A Dieback Consultative Council has recently been established by Western Australia's Minister for the Environment. The council has responsibility for implementing 33 specific recommendations that were made in a report of the Western Australian Dieback Review Panel in 1996. BFP was represented on the Council.

BFP is a major logging contractor to CALM in State forests and also operates on private land harvesting plantations.

Timber processing

Timber processing activities at BFP's five hardwood sawmills, the woodchip mill and two processing centres, pose challenges for environmental management. In particular, noise and dust are

considered serious issues at all sites and must be closely managed. Site managers have developed some innovative solutions to these issues in conjunction with local residents. Examples include stockpiling sawn product along fence lines to act as buffers and tree planting projects aimed at providing long-term solutions.

Disposal of grinding sludge is also an issue at Manjimup and Welshpool processing centres. The sludge is made up of lubricant oil and metal filings produced from saw grinding activities. The waste is stored on site prior to disposal by registered contractors commencing in 1999.

Woodchip operations

The environmental aspects of BFP's wood chipping operations associated with the processing of forest residues are regulated by conditions set by the Environmental Protection Authority (EPA).

Annual reports and a comprehensive five-yearly report detailing compliance with these conditions are submitted to the EPA. BFP is required also to comply with the conditions of its export license issued under the Commonwealth of Australia Export Control Act (1982). Compliance is monitored by the Federal Government and independently audited.

Site contamination

Part of BFP's Pemberton sawmill site is contaminated with arsenic and pentachlorophenol resulting from timber treatment activities carried out primarily by previous owners. While BFP has made very little contribution to the contamination we accept the need to contribute to the restoration of the site to an environmentally-acceptable standard.

The issue has been discussed with the State Government, given its original ownership of the site. The extent of the contamination has been monitored and an action plan to rectify the problem is expected to be finalised by 30 June 1999.





Treatment plant

BFP operates a plant at Mundijong, which uses the CCA (Chrome, Copper and Arsenic) treatment process to preserve timber. Water and soil levels are monitored annually and water runoff quality is reported annually to the EPA.

Residue disposal

Disposal of bark and other wood residues is an ongoing challenge at all processing centres. This issue is being tackled through a number of initiatives including:

- bark sales to other organisations;
- product development involving accelerated microbial breakdown of bark and chip fines which is currently being undertaken in the United States of America and may lead to BFP conducting field trials in 1999; and
- investigation of the potential to generate energy from this waste via a co-generation plant.

Tree farming

BFP established 3,700 hectares of hardwood plantation and 250 hectares of softwood in 1998. We now manage a plantation estate of almost 40,000 hectares throughout the south west. More than 33 million trees have been planted since 1988.

BFP, through its membership of the Western Australian chapter of the Australian Forest Growers, has assisted in developing the “Code of Practice for Timber Plantations in Western Australia” which was released in 1997. The Code requires plantation operations to be conducted in a manner that is in accordance with principles of environmental care, safety and forest protection while recognising that plantations must be economically competitive.

We are committed to implementing this Code and have conducted both internal and external audits to ensure compliance. The first independent audit concluded that there was satisfactory overall

compliance with the Code. However procedures, training and supervision in relation to chemical and pesticide use required improvement. As a result of this audit, training has been conducted and improved procedures for checking contractor work have been implemented. A second audit will be conducted in 1999.

Water runoff

Water runoff from woodchip stock piles into surrounding waterways is monitored at both Bunbury port and Diamond mill. This monitoring is carried out in conjunction with the Department of Environmental Protection. No adverse issues were identified in 1997/98.

All south-west production locations other than Collie monitor the quality of water runoff. Collie will be included as part of the pre-EMS audit process.

Greenhouse gas emissions

The forest and timber industries are increasingly being recognised for their positive impacts on greenhouse gas emissions. As a building product, timber compares favourably with substitute products in terms of both the carbon released during manufacture and carbon stored.

Material	Carbon released (kg/m ³)	Carbon stored (kg/m ³)
Rough sawn timber	15	250
Steel	5 320	0
Concrete	120	0
Aluminium	22 000	0

Source: Ferguson et al (1996), Environmental Properties of Timber, research paper commissioned by the Forest & Wood Products Research and Development Corporation

BFP’s plantation programme also plays an important role in carbon sequestration, particularly when soil disturbance is minimised during operations.

Landcare

BFP plays a significant role in regional landcare activities through membership of the Manjimup Land Conservation District Committee and regular contact with other district committees throughout the

south west. Our personnel take part in field days and offer discounts on seedlings to all land conservation district committees.

We also work closely with the Western Australian Farmers Federation (WAFF) which takes a proactive role in educating and motivating farmers to establish tree plantations on private property. BFP provides sponsorship, information and regular speakers at WAFF zone meetings.

A farm forestry facilitator has been employed to encourage landowners to establish tree plantations on their properties throughout the south west.

The Bunnings Watercare Programme was initiated in 1991. It was formed to respond to local communities' concerns about the state of the Blackwood River catchment. The programme employs a full time manager to work with communities covering 30,000 square kilometres of the Blackwood and Margaret River catchments.

During 1998 BFP won the National Landcare Business Award in recognition of the contribution of this programme towards improving water quality in the south west.

HEALTH AND SAFETY

BFP aims to provide an accident free and healthy environment for our employees. A target of zero workplace accidents is part of BFP's continual focus on occupational health and safety. Our lost time incident frequency rate target for 1998/99 is 3.5.

BFP records accident statistics at 29 different locations. Of these, 20 locations recorded zero lost time accident frequency rates in 1997/98.

Improvements in our health and safety performance continue to reflect our commitment towards this goal (see figure 1).

A major factor in this improvement has been the achievement of the forest harvesting group. BFP forest harvesting employs 145 people and operates more than 200 pieces of equipment.

The timber industry, and logging operations in particular, have traditionally been seen as high-risk occupations. In 1993 the harvesting group had a LTIFR of 80. When the BFP Safety Council was formed in 1993, a goal of zero incidents was set. Local management

began to intensify its focus on safety issues and the first improvements were seen almost immediately. A continual push for improvement and change in attitude has led to the improvements (see figure 2).

In conjunction with this changing internal focus and attitude, the industry and CALM have formed a logging safety working group that has developed an industry safety code.

Risk management award

An example of the high priority afforded by BFP to environmental, health, safety and associated issues is the annual Managing Director's Risk Management Award. Each year since 1994, the Managing Director of BFP and a team of risk management specialists have visited locations to conduct detailed procedural audits. Included in these audits are matters such as training, induction and anti-harassment procedures. Awards are made to the best performers in production and distribution and the results publicised widely within the company.

Prosecutions

BFP was prosecuted by WorkSafe over the death of a forklift driver at the Manjimup Processing Centre in November 1995. Our appeal against the conviction in a lower court was upheld and BFP was exonerated by the Supreme Court of Western Australia.

A WorkSafe prosecution relating to a knee injury that occurred in a forest harvesting accident in February 1997 is pending.

No fatalities occurred during the period covered by this report.

Figure 1: Bunnings Forest Products safety performance

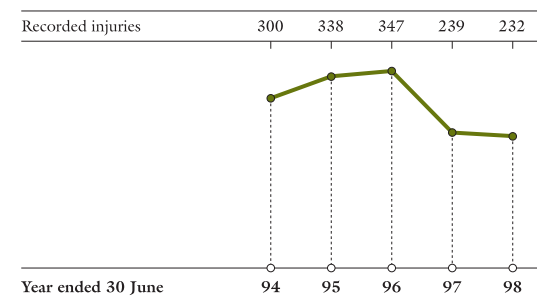
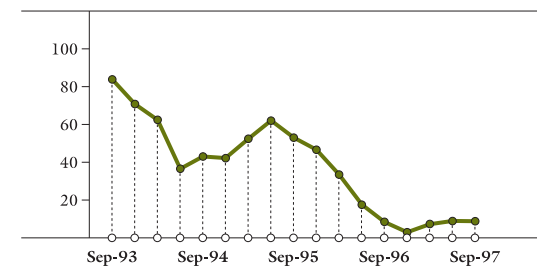


Figure 2: Bunnings forest harvesting rolling 12 month LTIFR



Priorities for the future

Our key targets include:

Environment

- reduce fluoride and nutrient losses to the environment;
- reduce odours from fertiliser manufacture;
- minimise solid waste generation;
- improve energy efficiency; and
- support for sustainable agricultural practices.

Health and safety

- reduce workplace injuries;
- improve contractor safety performance;
- continue “fit backs at work” programme;
- improve emergency response preparedness; and
- reduce environmental and workplace noise levels.

Fertilisers and chemicals



Wesfarmers CSBP is a wholly owned subsidiary of Wesfarmers Limited and produces fertilisers and chemicals for the State's agricultural and mining sectors. Our fertiliser operations began in 1910 and today include works at Kwinana, Bunbury, Albany, Geraldton and Esperance plus various depots in Western Australia. CSBP employs approximately 650 people. Wesfarmers CSBP has a 75 per cent interest in the sodium cyanide joint venture managed by Australian Gold Reagents.

ENVIRONMENTAL MANAGEMENT

Our mission

To be a leader in environmental care in our business operations.

Management approach

CSBP is striving to achieve its mission through the application of best practice techniques and cleaner production principles to existing operations and new developments. Employee awareness and commitment is critical to our success.

Management systems and responsible care

CSBP's environmental management system (EMS) is being developed consistent with the requirements of the new international standard for EMS's, ISO 14001. This system is used to plan and implement continuous improvement in environmental performance.

CSBP is a member of the Plastics and Chemicals Industries Association (PACIA) and a signatory to the Responsible Care Programme. There are eight codes of practice, which underpin this programme which is a world-wide chemical industry initiative aimed at improving the health, safety and environmental performance of the industry and increasing openness towards the public.

The Responsible Care Programme is used in over 40 countries and was favourably endorsed at the Rio Earth Summit in 1992 and more recently at the Intergovernmental Forum on Chemical Safety in Canada in 1997.

Compliance with the eight codes is self-assessed biennially and random verification audits are organised by PACIA and undertaken by professional auditors. CSBP contributes to the annual PACIA waste management survey which is made available to the public.

Monitoring and reporting

CSBP has developed a comprehensive regime for monitoring and reporting on its environmental performance, in addition to its statutory obligations. As part of this regime each business unit develops environmental action plans which are reviewed by senior management every six months. There is also a formal monthly report to senior management on a wide range of environmental, dangerous goods and emergency response issues.

Environmental issues

The major environmental issues for CSBP include:

- community relations - legislative compliance, impact reduction, community consultation;
- emissions to the environment - gaseous emissions (oxides of nitrogen, sulphur dioxide, fluoride, greenhouse gases), odour, liquid discharges (phosphorus, nitrogen, fluoride) and particulate matter (ammonium nitrate dust);
- solid waste management/site contamination; and
- prevention - bunding, major hazards risk reduction.

Legislative compliance

CSBP operates under a number of licenses issued by the Department of Environmental Protection and the Department of Minerals and Energy.

The company recorded 11 environmental licence non-compliances for the year. Five were recorded at Kwinana and six at country facilities. Most infringements related to minor exceedance of licence limits for sulphur dioxide or phosphorus, failure to analyse wastewater at the required frequency or for the complete set of parameters. Action has been taken in all cases to prevent reoccurrence.

There were three notifications to the Department of Minerals and Energy for dangerous goods storage incidents. These were for a spill of acid into a bunded area, an emission of ammonia from the ammonia plant (see page 18), and an arsenic spillage (see page 19).

Complaints

The number of complaints to CSBP was 31 for the year, compared to 13 in 1996/97. Most complaints related to odours from the fertiliser manufacturing operations caused by a new source of phosphate rock. All complaints were investigated and followed up with the complainant where possible. In response to these community concerns, CSBP piloted odour removal systems at its Bunbury site in early 1998, resulting in a 70 per cent reduction in odour levels. CSBP is continuing its research in a bid to achieve further reductions in odour levels.

Kwinana Community Advisory Panel

Community "Right to Know" is an important component of the Responsible Care Programme and CSBP promotes this Code of Practice through the Kwinana Community Advisory Panel which commenced in 1993. Community members represent schools, residents' associations, local government, regulatory and industry groups.

The group met on six occasions during the year to discuss CSBP and other industry issues, local and regional issues, inspect chemical plants and hear presentations from invited guests.



Sustainable agriculture

During 1997/98, CSBP maintained a strong commitment to landcare and the continued development of sustainable agricultural practices. It was involved as an industry partner in major research projects and others coordinated by Land Conservation District Committees throughout Western Australia's agricultural regions.

EMISSIONS TO THE ENVIRONMENT

Air emissions

Oxides of nitrogen (NOx) emissions

The new nitric acid plant (commissioned in April 1996) continues to operate at world's best practice levels for oxides of nitrogen emissions according to the European Fertilizer Manufacturers' Association achievable emission levels, 1995 (see figure 1).

CSBP operates two sodium cyanide plants at Kwinana on behalf of Australian Gold Reagents (AGR) a joint venture between CSBP (75 per cent) and Coogee Chemicals (25 per cent). A \$12.4 million upgrade to the first sodium cyanide plant has reduced emissions of NOx by about 75 per cent since commissioning in March 1996 (see figure 1).

A second sodium cyanide plant commissioned in June 1998 uses similar selective catalytic reduction technology as the new nitric acid plant to reduce NOx in the flue gas.

At Geraldton, Albany and Esperance works, minor NOx emissions from the sulphuric acid plants were monitored.

Sulphur dioxide (SO2) emissions - Kwinana, Geraldton, Albany and Esperance

CSBP has four sulphuric acid plants servicing its fertiliser and chemical operations. These plants burn elemental sulphur and emit small quantities of sulphur dioxide to the atmosphere which are continuously monitored by automatic monitoring equipment. The three country works plants operate for only part of the year.

The Kwinana sulphuric acid plant converts more than 99 per cent of the sulphur dioxide to sulphuric acid and operates within limits set by the Department of Environmental Protection (see figure 2).

Figure 1: NOx emissions, nitric acid plant, sodium cyanide plant

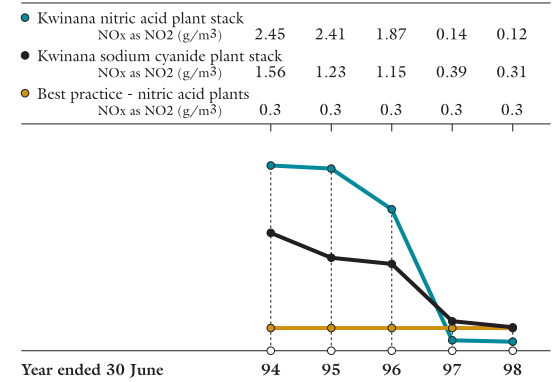


Figure 2: Kwinana sulphur dioxide emissions

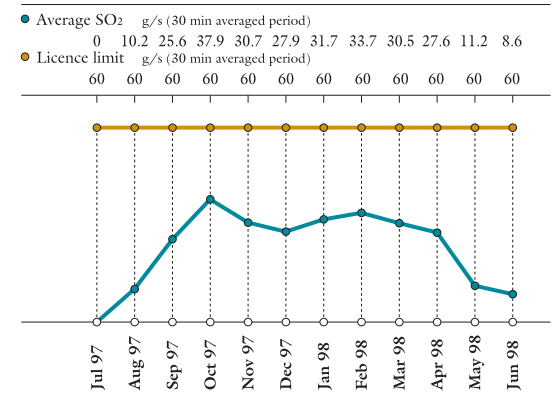


Figure 3: CSBP's greenhouse emissions by source - 1995

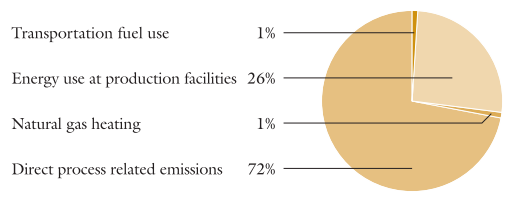
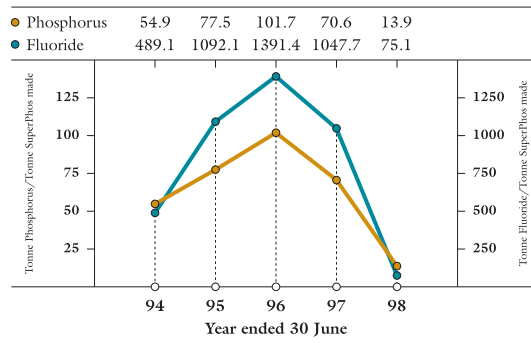


Figure 4: Phosphorus and fluoride discharges to Cockburn Sound



CSBP is an active participant in the Kwinana Industries Council Ambient Air Quality Monitoring Network which monitors sulphur dioxide levels in the Kwinana/Rockingham region from a variety of sources in the Kwinana industrial area. Ambient sulphur dioxide levels remain well below the requirements of the Kwinana Environment Protection Policy.

Other emissions

Ammonia - There were four accidental releases of ammonia from storage tanks at Kwinana in 1997/98 which caused nuisance impacts on CSBP's contractors and industrial neighbours. These incidents have all been fully investigated and action taken to reduce the potential for similar incidents in the future, including planned modifications to the ammonia flare in 1998/99.

Chlorine - Small amounts of chlorine gas are released to the atmosphere during the production and despatch of chlorine at Kwinana. The Kwinana chlor-alkali plant operated within chlorine emission licence limits during the year. A comprehensive monitoring system alerts personnel in the area to chlorine releases above 1 ppm.

Fluoride - Emissions of fluoride from superphosphate manufacture were within licence limits for the year.

Prilling plant particulates - emissions of ammonium nitrate particulates from the prilling plant were maintained within the licence limit of 250 mg/m³ despite increased throughput during the year.

Odours

CSBP continued work during the year on a major research and development project in an effort to reduce odours from fertiliser production. In addition to CSBP's own odour reduction trials, the company is involved in a cooperative research programme with an eastern Australian fertiliser company.

Greenhouse gas emissions

In May 1997, CSBP signed a co-operative Greenhouse Challenge Agreement with the Federal Government and commenced the implementation of a programme aimed at reducing greenhouse gas emissions by 28,000 tonnes per year based on 1995 levels until the

year 2000. The piechart in figure 3 shows CSBP's contributions to greenhouse emissions by emission source based on 1995 emissions.

Work to date has focussed on: conducting energy audits at all sites to verify energy usage and identify energy saving opportunities; developing an energy policy and procedures; preparing a database for monitoring energy use and greenhouse emissions and completing the first draft annual report to the Australian Greenhouse Office.

The new nitric acid/ammonium nitrate plant and the sodium cyanide plant debottlenecking completed in 1996, resulted in a reduction of 25,000 tonnes of CO₂ equivalent per year from waste heat recovery and power generation. This compares to annual CSBP greenhouse emissions of 229,000 tonnes of CO₂ equivalent per year for 1995.

Energy recovery is also a feature of a second sodium cyanide plant at Kwinana, commissioned in June 1998 and operated by CSBP on behalf of AGR. Energy efficiency was a key consideration in the design and construction of a new office building at CSBP's Kwinana site. A new ammonia plant presently under construction at Kwinana is also designed to maximise energy efficiency and generate power from waste heat.

Liquid emissions

The only sites which discharge to waterways are Albany, Bunbury and Kwinana.

Phosphorus (P) and fluoride (F)

At Kwinana, completion of stage 1 of a \$1.55 million project to recycle phosphorus and fluoride resulted in an 80 per cent reduction in phosphorus discharges to Cockburn Sound compared to 1996/1997 (see figure 4). Total discharges for 1997/98 were 13.9 tonnes, well below the licence limit.

Stage 2 of the recycling project will be completed in 1998/99. CSBP plans to continue efforts to further reduce site discharges of phosphorus and fluoride.

Fluoride discharges from the superphosphate plant fell by 93 per cent - down from 1,048 tonnes in 1996/97 to 75 tonnes.

CSBP maintained an excellent record at its Albany manufacturing facility during the year, with phosphorus discharges to Princess Royal

Harbour totalling 16 kilograms – down from an estimated 8000 kilograms discharged 10 years ago (see figure 5). The licence limit is now 800 kg/year.



Fluoride discharges at Albany were reduced by 67 per cent, falling from one tonne in 1996/97 to 0.3 tonnes in 1997/98.

Continued improvements were recorded at CSBP's Bunbury manufacturing facility which discharged 14 kilograms of phosphorus to the Preston River during the year. CSBP aims to further improve this performance in 1998/99 with the completion of stage 3 of a long-term wastewater management project enabling more wastewater to be recovered and reused.



Fluoride discharges at Bunbury were reduced by 62 per cent from 16 kilograms in 1996/97 to six kilograms in 1997/98.

Nitrogen (N)

Nitrogen discharges to Cockburn Sound from CSBP's Kwinana facility were almost halved during the year, falling from 118.4 tonnes in 1996/97 to 62.3 tonnes in 1997/98 (see figure 6). There were no exceedances of the licence limit. CSBP aims to progressively reduce these nitrogen discharges to 40 tonnes annually by 2000/2001.

Nitrogen discharges to Albany's Princess Royal Harbour fell marginally during the year from 2.8 tonnes in 1996/97 to 2.5 tonnes during 1997/98, compared to the licence limit of 3.35 tonnes per year. While an improvement, a new nitrogen removal facility has not performed as expected and development work is now underway in an effort to improve its efficiency and reduce nitrogen losses to less than one tonne per year by 2000/2001.

Nitrogen discharges to the Preston River at Bunbury fell from 52 kilograms in 1996/97 to 12 kilograms in 1997/98 – a 77 per cent improvement. CSBP believes it can sustain the improved performance with the development of improved drainage and containment facilities, and improved housekeeping, on its Bunbury site.

Kwinana waste water strategy

CSBP has developed and is implementing a waste water strategy for the whole Kwinana site based on the principles of reduction, reuse and recycling. Our objective is to achieve near zero contaminant discharges from the site by June 2002 to build on the achievements already made.

Solid waste management

Arsenic waste clean-up and disposal

Arsenic trioxide is a chemical used as a catalyst in the manufacture of ammonia and a waste material containing arsenic is generated. A 600 tonne stockpile of this arsenic waste had accumulated at Kwinana works by early 1997 and was stored on-site in a secure compound. After obtaining approval to consign the waste to the State Government's Intractable Waste Disposal Facility at Mt Walton East in Western Australia, work was carried out to clean-up the storage compound and package the waste for delivery to Mt Walton East.

Acceptance of the consignment was delayed when a few litres of arsenic contaminated liquid leaked from the drums on to the truck trays. The spillage did not present any danger to the environment or public safety but nevertheless had to be rectified. CSBP repackaged and safely transported the material to the Mt Walton East facility in March 1998. CSBP was prosecuted by the Department of Mineral and Energy for the initial consignment not meeting regulatory standards for packaging and was fined \$15,000 after pleading guilty.

Site contamination

In the process of monitoring its manufacturing sites, CSBP has identified contamination at its Bayswater property and is developing a site remediation plan. Further details will be provided in subsequent reports.

Prevention

Bunding improvements (Kwinana)

Bunding of the phosphoric acid tank farm at Kwinana was completed at a cost of \$0.8 million. Work also commenced on the \$1.1 million sulphuric acid tank farm bund. This work is part of a

Figure 5: Phosphorus discharges - Albany

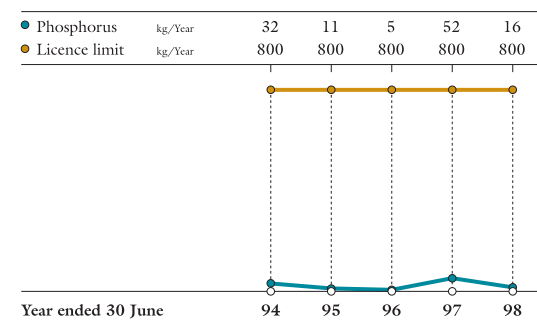
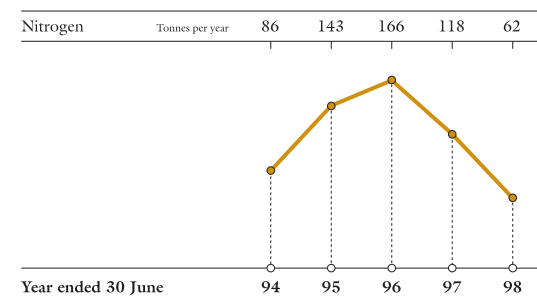


Figure 6: Nitrogen loss reduction to Cockburn Sound



• Licence limit for 1997/98 was 274 tonnes of nitrogen.

Figure 7: Number of lost time injuries

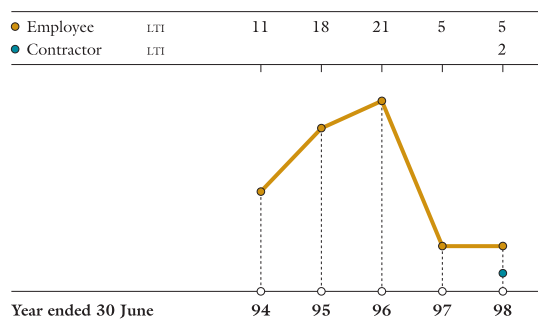
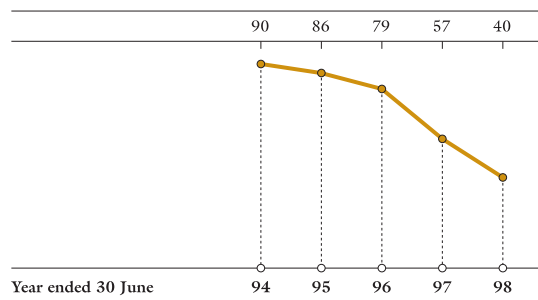


Figure 8: Compensable injuries



\$3.45 million, five-year improvement programme to upgrade secondary containment of dangerous goods storage in line with new government regulations.

Major hazards management

Quantified risk analysis by external consultants for the entire Kwinana site has been completed. This analysis reported on cumulative risks and has been used in developing a site safety management system for all major hazard plants. The system will enhance performance improvement in process safety and contribute to reducing public risk.

HEALTH AND SAFETY

Our mission

Our goal is to be the safest fertiliser and chemical company in Australia by establishing an integrated safety and production culture and maintaining the highest industry standards. This will ensure the safety and well-being of our employees, customers and the community.

Management approach

Safety is a top priority at CSBP. We believe that all accidents can be prevented and strive towards a target of zero lost time injuries. CSBP uses the International Safety Rating System to manage occupational health and safety. The key performance indicator is the lost time injury frequency rate (LTIFR) representing the number of injuries per million manhours worked which result in lost time.

The PACIA Responsible Care Codes of Practice provide safety guidance in the manufacturing, warehousing and storage, transportation and product stewardship codes of practice. Compliance with these codes is self assessed biennially and benchmarked against other PACIA companies.

The WorkSafe Act and regulations provide a framework for CSBP's health and safety



management programme and compliance with their requirements is a minimum standard of performance.

Health and safety issues

The major issues for CSBP are:

- managing accidents, incidents and injuries;
- high level of emergency response; and
- employee health and well being.

Targets and performance

Accidents, injuries and incidents

In 1997/98, CSBP recorded five lost time injuries to employees for the second year in succession (see figure 7) against a target of three or less. There were two lost time injuries to contractors working under CSBP supervision. No figures for contractors are available for previous years.

Sadly, one contractor working under another contractor's supervision was fatally injured while working on the construction site of the sodium cyanide duplicate plant during the year. This accident was investigated by CSBP and WorkSafe which is yet to release its findings.

CSBP's target for 1998/99 is a total of six or less lost time injuries (CSBP employees and contractors).

The LTIFR for CSBP employees in 1996/97 was 4.1. In 1997/98 the LTIFR for employees and contractors was 4.2. This is the first year that employee and contractor statistics have been combined.

CSBP's performance compares favourably with most other chemical companies across Australia. For the 1997 calendar year, the average LTIFR for PACIA member companies was 6.29 (for employees only).

Compensable injuries reduced by 29 per cent from 57 in 1996/97 to 40 in 1997/98, a significant improvement as shown in figure 8. The target for 1998/99 is 30 or less.

Contractor safety

CSBP has started a long-term programme to improve the safety of contractors while they are working on any of our sites. In 1997/98 CSBP contractor incidents were recorded, investigated and subject to the same management review process that applies for CSBP employees.

“Fit backs at work”

An analysis of the CSBP injuries for the year is shown in the pie chart in figure 9. The results show a predominance of sprain/strain type injuries comprising 39.3 per cent of all injuries. To reduce injuries of this type, CSBP commenced a “fit backs at work” programme to supplement a manual-handling programme initiated in 1996/97. Results after one year showed a reduction in these types of injuries by 38 per cent.



The on-site incidents were all minor and involved, for example, small scrub or sulphur fires.

Health and hygiene monitoring

All of CSBP’s Emergency Response team members have an annual medical and fitness assessment. Other employees have access to medical check-ups on a voluntary basis.

Some employees working in high exposure areas are monitored for fluoride and lead. Current results indicate employees are well below the exposure standard. Additional biological monitoring supports this data.



Safety management

In line with the International Safety Rating System used by CSBP in safety management, an internal compliance audit was conducted in November 1997. We achieved a rating of 8.5 out of 10, compared with 8.6 the previous year.



Emergency response

CSBP maintains a full emergency response service, 24 hours a day, seven days a week for on-site or off-site emergencies. This emergency response service forms part of the company’s commitment to the PACIA Responsible Care Programme.

In 1997/98, CSBP’s emergency response team responded to 15 callouts – 11 on-site and four off-site. Of the four off-site incidents attended, two did not involve CSBP products. CSBP was called in these cases because of its expertise in handling chemical incidents.

The two off-site incidents involving CSBP products were:

- Derailment of a sodium cyanide train during shunting at Merredin. There was no loss of cyanide nor significant damage to the vessels in which it is carried (isotainers), but there was extensive damage to sleepers and rail lines.
- Spillage of less than five litres of sulphuric acid from a truck at a Bunbury intersection. CSBP’s Bunbury emergency response team worked with local fire and rescue services to neutralise the spill. There was no impact on the environment or public safety.

Noise reduction

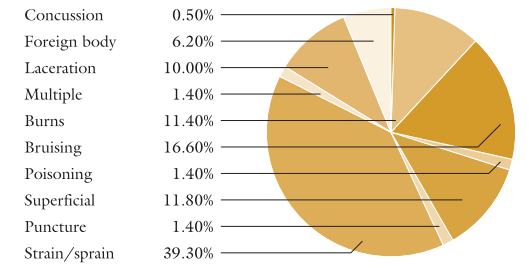
CSBP is working to reduce occupational and environmental noise across all of its sites to ensure compliance with new noise regulations.

One project, at the company’s Kwinana ammonium nitrate facilities, has cut noise levels by 15 decibels – from 100 dB(A) to 85 dB(A). This reduction was achieved by installing acoustic insulation on pipework.

A second project is underway to reduce noise in the Kwinana sodium cyanide plant.



Figure 9: Total injury analysis at CSBP-1997/98



Priorities for the future

Our key targets include:

Environment

- improve equipment-fuel economy;
- reduce emissions; and
- establish an Environmental Management System by December 1999.

Health and safety

- achieve the annual target of halving the lost time injury frequency rate; and
- no fatalities or serious incidents.

Transport



Wesfarmers Transport – a diverse transport operator in Western Australia – comprises freight and specialised transport services. We also have operating centres in the Northern Territory, New South Wales and Queensland. The transport fleet includes about 1,400 units of operating equipment – used to haul general, heavy and bulk freight. We employ about 550 people.

ENVIRONMENTAL MANAGEMENT

To further enhance our management of environmental matters, we obtained assistance from an environmental consultant to develop a policy and complete a systematic audit of existing operations.

This led to new initiatives at a number of sites, particularly in respect to the appropriate bunding of distillate storage tanks.

The following minimum performance targets have been set:

- establishment of an Environmental Management System by December 1999;
- improved fuel economy;
- reduced exhaust emissions; and
- prevention of spillage or leakage of dangerous goods.

Vehicle emissions/consumption

We will introduce a fuel consumption reporting system (via litres/km or litres/operating hour) which can be readily sourced and monitored.

Procedures are in place to ensure diesel-powered equipment is maintained to the highest standards, thereby minimising exhaust emissions. Maintenance procedures are quality endorsed to AS/NZS ISO 9002:1994.

Dangerous goods cartage

Dangerous goods transport is given the highest priority. Procedures are in place to ensure that personnel are trained and competent in emergency response and handling, transport and storage of products.

Environmental management system

The following environmental issues will also be addressed during the establishment of an Environmental Management System:

- management of waste oils and other products used in equipment maintenance activities;
- disposal of tyres;
- use of selected environmentally-friendly refrigerant gases;
- impact of equipment noise (e.g. engine exhaust or vibration sources);
- storage and dispensing of distillate and lubrication products;
- collection and treatment of washdown products; and
- active review of vehicle fuel economy and alternative 'cleaner' energy sources.

Employee awareness

A quarterly newsletter will increase employee awareness of environmental issues and site meetings will be held with employees.



HEALTH AND SAFETY

Occupational health and safety is a priority for Wesfarmers Transport and all activities must, as a minimum, be compliant with WorkSafe requirements.

Key performance targets are to:

- reduce lost time injuries by 50 per cent per annum towards a target forecast figure of zero (figure 1 shows the improving trend that is evident over the last 18 months); and
- prevent serious incidents.

These targets are supported by action on several fronts.

Annual audits of activities are carried out at selected sites by our accredited WorkSafe assessor to ensure compliance with WorkSafe legislation. Over the past two years, steady improvement has occurred with one site awarded a gold certificate and two sites silver certificates by WorkSafe.

We introduced the Dupont STOP (Safety Training Observations Programme) training system during 1997. Significant progress has been achieved with supervisor training. This is ongoing and applies to all new supervisory personnel.

In accordance with occupational health and safety legislation, safety committees have been established, staffed by trained personnel.

Each lost time injury or significant incident is investigated by a safety review panel comprising the General Manager, Divisional Manager and the Safety Coordinator. The supervisor and employee concerned are required to attend the review.

Our fleet maintenance and inspection procedures are quality assured to ensure the highest level of equipment safety. The equipment services division was granted a quality assurance certificate in August 1997 and successfully completed the first compliance audit in February 1998.

Prosecution

Wesfarmers Transport was prosecuted by WorkSafe relating to an injury to a sub-contractor's hand in October 1996. Wesfarmers Transport pleaded guilty and was fined \$4,000.

Health and safety issues

Many of our activities involve potential hazards or risks to health and safety.

The broad geographical spread of our operation provides a logistical challenge as many of our branches/depots are in remote locations and are staffed by a small number of employees.

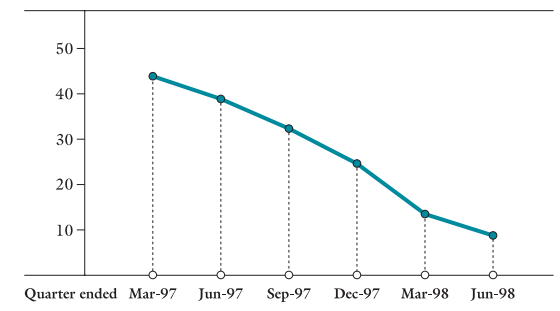
Wesfarmers Transport must comply with all regulatory requirements covering the transport and storage of freight and the handling of dangerous goods. These requirements include the induction and training of drivers and specific licensing for dangerous goods transport. Three-yearly refresher training is conducted.

Specific training with products such as explosives and acids is conducted annually to maintain the highest level of competence.

All equipment designated to carry dangerous goods undergoes a rigorous inspection every 12 months in addition to normal preventative maintenance.

Fatigue Management Programmes are being implemented throughout the industry with input from statutory bodies, owner/operators, unions and the industry. We are taking part in shaping the direction of these programmes.

Figure 1: Lost time injury frequency rate



Auditor's verification statement



Scope of our independent verification

At the request of Wesfarmers Limited, we have independently verified the data and information contained in the 1997/98 Environment, Health and Safety Report (the report) as documented below. The verification procedures described below are the only components of the report against which we comment.

Wesfarmers elected to report on five business units because of their environment, health and safety relevance to the group. The verification covers these business units being Wesfarmers Coal Limited, Wesfarmers Kleenheat Gas Pty Ltd, Bunnings Forest Products Pty Ltd, Wesfarmers CSBP Limited and Wesfarmers Transport Limited.

Our objectives were to:

- review the process for collecting and collating information for inclusion in the report
- confirm the accuracy of management statements and quantitative information included in the report
- assess the completeness and fairness of the information presented.

Collecting and collating information

We examined the process and associated systems and controls for collecting and collating the information.

Findings

- Wesfarmers Limited encouraged each business unit to retain ownership of their section of the report. This permitted each business unit to utilise existing systems and information and integrate the reporting process into their business functions.
- As a result, there is group-wide variation in identifying relevant reporting parameters and developing measurement methods.
- Only informal systems exist for internal review of information provided for this report.

Management statements and quantitative information

We confirmed the accuracy of management statements and quantitative information included in the report through discussions, vouching a sample to supporting documentation, testing the reasonableness of assumptions and recalculating where required.

Findings

- The work performed identified amendments to statements and quantitative information which were considered by management

and adopted within the report. The weaknesses in the data collation procedures are being addressed by management.

- Management statements relating to progress and performance during the reporting period are valid and consistent with performance data.
- Quantified information is consistent with source documentation, however, Lost Time Injury Frequency Rates were not calculated on a consistent basis by each business unit.

Completeness and fairness of report disclosure

We tested completeness and fairness of disclosure in the report with our findings from the above procedures and through discussions with relevant management and staff.

Findings

- The report reflects the commitment given to environment, health and safety affairs at senior and operational management level, whilst also acknowledging the different status of environmental awareness and management at each business unit.
- While the majority of environment, safety and health issues have been addressed, a systematic and consistent approach was not applied to identify the significance of issues for reporting such as water usage and discharge, land and groundwater contamination, stakeholder communication, incident reporting across the group, and hydrocarbon management.
- The process of setting targets and objectives, and supporting action plans is not sufficiently formalised.

The above findings summarise a number of areas that have been identified by us and presented in detail, together with recommendations, to Wesfarmers' management.

PricewaterhouseCoopers

Richard G Moore

Partner

Melbourne, 21 December 1998