Tarmac

# CHANGING LANDSCAPES

## REPORT TO SOCIETY 2005

A member of the Anglo American plc group

BIODIVERSITY



A look at some of the many ways in which we are helping to encourage biodiversity and restore natural habitats across the UK.

HEALTH & SAFETY



In 2005 Tarmac invested heavily in new equipment and devised innovative ways of working to ensure that hand arm vibration doesn't compromise the health of our workforce.

WATER USE



Our new 'reservoir pavement' technology – Tarmac Aquifa™ – is set to reduce the risk and costs of flash flooding through its environmentally friendly drainage system.

COMMUNITY & EDUCATION



Tarmac's Millennium Eco-Centre near Wrexham is helping to promote sustainable living and raise awareness of environmental issues across the wider community.

## CONTENTS



WELCOME TO TARMAC'S REPORT TO SOCIETY FOR 2005. AS A BUSINESS, WE PLAY AN ESSENTIAL ROLE IN PROVIDING SOCIETY WITH THE RAW CONSTRUCTION MATERIALS WHICH MAKE UP THE FABRIC OF OUR DAILY LIVES.

As well as our commercial considerations, we are guided by a strong sense of responsibility for the health and safety of our employees, for the environment and for the communities we work in and society as a whole. We're also committed to communicating openly and honestly on our performance in these different areas and to sharing our vision of where we are heading. We have produced this report to give our customers, regulators, employees and neighbours, as well as local councillors, planners and MPs, an accurate understanding of the efforts we are making to manage our business responsibly.

In this, our 11th report of its kind, we've begun with four in-depth case studies which give an insight into some of our recent innovations and policies at work. Towards the back of the report, you'll find detailed data and analysis of our performance in the different sectors before a final word from our CEO.

We hope you'll find it informative, engaging and even inspiring. Although we've achieved much already, we're constantly looking at how we can continue to improve, because in Tarmac, we believe the foundations of the future are laid today.

TARMAC IS A LEADING PROVIDER OF MATERIALS, PRODUCTS AND SERVICES USED BY THE CONSTRUCTION INDUSTRY TO CREATE AND SUSTAIN THE SOCIETY WE LIVE IN.

Our products are in use almost everywhere you look: in roads, buildings and infrastructure projects of course, but also in paper, glass, cosmetics and many more sectors besides. As well as providing essential materials for all types of industry, we're also a major supplier of contract construction services for both the public and private sectors.

## WHO WE ARE

We have a rich history and an exciting future. More than 100 years ago, we invented the modern road surface 'tarmacadam'. Over the years, we have grown and diversified significantly; in 2000, we became a part of Anglo American plc – one of the world's largest mining and natural resources companies.

Working within Anglo American's Industrial Minerals division, we employ more than 12,000 people and achieved a turnover of £1.4 billion in 2004. We are the leading supplier of building materials in the UK, and have also established significant international operations in continental Europe, the Middle East and Asia.

The countries in which Tarmac operated in 2005 are: UK, Eire, France, Belgium, Germany, Spain, Poland, Czech Republic, United Arab Emirates, Oman, India, China and Hong Kong.

## WHAT WE DO

Our business has evolved dramatically over more than a century. From producing the road-surfacing material from which our name is derived, we now serve a variety of industry sectors that impact on virtually every aspect of daily life. An overview of our products, services and their related uses is provided on the opposite page.

## WHAT WE BELIEVE

As a business, we are focused on providing ever-higher standards of service and value to our customers wherever we operate.

At the same time, we are committed to investing in our employees – helping them to realise their potential while providing a safe and healthy environment in which they can work.

We look to grow our business in a sustainable and responsible manner, providing our shareholders with a good return on their investment. We also believe we have a responsibility to play a positive role in the communities in which we work and to be a leader in environmental management.

This report looks at our performance in safety, health, environment and social matters across 2005, and the plans that are in place to improve our performance in all these areas.

# ABOUT TARMAC

| PRODUCT OR SERVICE | USED FOR |
| --- | --- |
| AGGREGATES:<br>CRUSHED ROCK, SAND AND GRAVEL | • ROAD CONSTRUCTION<br>• BUILDING AND INFRASTRUCTURE FOUNDATIONS<br>• PRODUCTION OF CONCRETE AND ASPHALT |
| ASPHALT | • MOTORWAY CONSTRUCTION<br>• AIRPORT RUNWAYS<br>• SPORTING ARENAS<br>• CAR PARKS AND DRIVEWAYS |
| READY-MIXED CONCRETE | • CONSTRUCTION PROJECTS |
| CONCRETE PRODUCTS | • CONCRETE BLOCKS FOR WALLING, STRUCTURAL FLOORING AND DECORATIVE PAVING<br>• SPECIALIST PRE-CAST PRODUCTS FOR TUNNEL, RAIL AND CIVIL ENGINEERING PRODUCTS |
| MORTAR AND SCREEDS | • SMALL-SCALE BRICK-LAYING PROJECTS<br>• MAJOR HOUSE-BUILDING SCHEMES |
| CEMENT | • PRODUCTION OF CONCRETE AND CONCRETE PRODUCTS FOR THE CONSTRUCTION INDUSTRY |
| LIME | • LAND REMEDIATION<br>• WATER TREATMENT PROJECTS<br>• PRODUCTION OF FIBREGLASS, TOOTHPASTE, SUGAR, GLASS, LEATHER, IRON AND STEEL |
| CONSTRUCTION CONTRACTING SERVICES | • ROADS<br>• FOOTPATHS AND CYCLEWAYS<br>• INDUSTRIAL OR BUSINESS PARKS<br>• MULTI-STOREY CAR PARKS AND COMMERCIAL DRIVEWAYS<br>• FENCING, SIGNING, LIGHTING AND TRAFFIC MANAGEMENT |
| RECYCLING SERVICES | • RECYCLING WASTE MATERIALS FROM THE CONSTRUCTION INDUSTRY AND ALSO THE IRON AND STEEL INDUSTRY<br>• PRODUCING A RANGE OF RECYCLED AGGREGATES AND BLENDED MATERIALS FOR REUSE |

## KEY FACTS

- **WE INVESTED £110 MILLION IN A NEW CEMENT PLANT AT BUXTON, UK**
- **WE HAVE PLANTED MORE THAN 110,000 TREES IN THE LAST FIVE YEARS**
- **IN 2005 WE PRODUCED 76.8 MILLION TONNES OF AGGREGATES**
- **WE OPERATE 37 RECYCLING SITES WORLDWIDE**
- **WE HAVE OVER 12,000 EMPLOYEES WORLDWIDE**

THE VERY NATURE OF OUR BUSINESS HAS THE POTENTIAL TO DAMAGE OR DESTROY A RANGE OF PLANT AND ANIMAL LIFE IN A HABITAT, SO ACROSS OUR UK SITES, WE ARE WORKING HARD TO ENCOURAGE BIODIVERSITY – FROM KESTRELS NESTING IN A HOPPER IN BOLTON TO CREATING A WILDFLOWER BANK AT WOLVERHAMPTON. AND ALTHOUGH COMMITMENT TO ENVIRONMENTAL PERFORMANCE IS COMPANY POLICY, COLLEAGUES HAVE REQUIRED LITTLE ENCOURAGEMENT TO GET INVOLVED.

"There is a distinction between conservation and restoration. We might have to take out a hedgerow but if, at the same time, we create ponds and banks for sand martins, we're still encouraging an overall gain."

**ANDY CRAWSHAW** Group Sustainable Development Manager, Tarmac

"We have to do our research and a lot of forward planning to make sure our work doesn't disrupt nesting birds. It's not just legislation – there's a genuine interest among quarry people to encourage wildlife. It's a more pleasing and rewarding way of working."

**GEORGE ELLIOTT** Restoration Manager – Midlands and North West, Tarmac

## CASE REPORT 1:
# BALANCING BUSINESS WITH BIODIVERSITY

## AN ONGOING COMMITMENT

We address environmental issues throughout the extraction process, from planning through extraction to handover after restoration is completed. An Environmental Impact Assessment is carried out at the planning stage, to evaluate the positive and negative impacts of our developments. We have an ongoing commitment to increase biodiversity through our operations and build this into our planning.

It is inevitable that our business, and quarrying in particular, causes environmental change; the challenge is to reduce its impact on wildlife, or even turn it into an opportunity to restore vanishing habitats. It isn't a mathematical evaluation; wildlife can't be measured in the same commercial terms as aggregates. But valuable habitats such as wetlands, heathlands and grasslands can be recreated to support a wide variety of flora and fauna, including many endangered species.

## BACKING THE BITTERN AT LANGFORD QUARRY

The bittern is a medium-sized heron, standing at just over two feet tall. In 1997, just 15 bitterns existed in the UK. By 2004, numbers had increased fivefold, thanks to the work of organisations such as the RSPB and English Nature. But we have also had a role to play. At our busy Langford sand and gravel quarry in Nottinghamshire, reed beds are being restored, and the bittern is slowly returning to the area. Working with the RSPB, we restore and prepare previously excavated land ready for the planting of reeds. The RSPB then manages and monitors the land and the wildlife it attracts.

## ACTION PLANS

At a number of our quarries, including Mancetter in Warwickshire, areas have been designated as Sites of Special Scientific Interest (SSSIs) in recognition of their rich biodiversity. Mancetter is also one of the sites with a Biodiversity Action Plan (BAP) already in place. This provides a framework within which we have developed targets and a strategy for protecting and maintaining the environment.

There's no legal obligation for BAPs at the moment but, as a responsible company, we are committed to putting BAPs in place at over 200 of our active mineral operations worldwide by 2008. We completed 11 in 2005 and there are plans to complete another 70 in 2006. The Estates and Sustainable Development departments work with ecology specialists and operational management to develop site-specific BAPs and, once completed, they will be managed as part of our environmental management system.

INTRODUCED IN 2000, OUR ZERO TOLERANCE CAMPAIGN IS FOCUSED ON PROTECTING THE HEALTH AND SAFETY OF OUR EMPLOYEES AGAINST ALL KINDS OF WORKPLACE RISKS. AS A PART OF THIS, TARMAC HAS BEEN INVESTING HEAVILY IN NEW EQUIPMENT AND DEVISING INNOVATIVE WAYS OF WORKING TO REDUCE EXPOSURE TO DANGEROUS LEVELS OF HAND ARM VIBRATION (HAV), WHICH CAN RESULT FROM ACTIVITIES IN THE CONSTRUCTION AND RELATED INDUSTRIES.

### BAD VIBRATIONS

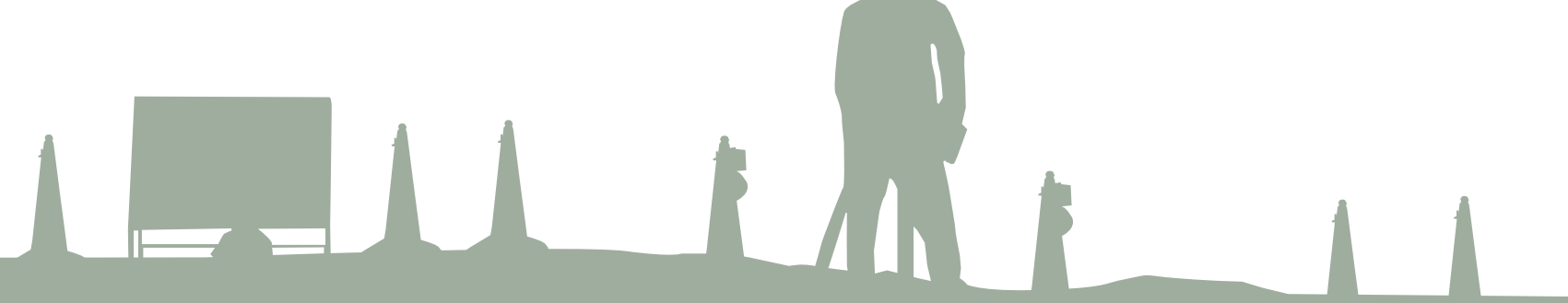
Go to any construction site, quarry or roadworks project and sooner or later you are likely to see a jack-hammer at work. These pneumatic excavators have long been considered essential in breaking up existing surfaces in preparation for new construction or repair work.

Nevertheless, jack-hammers – alongside other vibrating hand tools – can transmit significant levels of vibration back through the equipment to the users' hands and arms. Through prolonged exposure to HAV, damage can be caused to the blood capillaries and nerve endings. The consequent reduction in manual dexterity and, in extreme cases, chronic pain due to poor circulation is the condition known as Hand Arm Vibration Syndrome (HAVS).

### REDUCING RISK

With up to one million people in the UK exposed to potentially dangerous levels of HAV, this is an issue we take very seriously indeed. Building on our position as a leader in workplace health and safety, we have developed a comprehensive and innovative response that we believe will ultimately eradicate the risk of HAVS across our organisation – and act as an example of best practice to other employers in this sector.

## CASE REPORT 2:
# KEEPING HAV AT ARM'S LENGTH



By looking at the problem in its entirety, we realised that only a multi-faceted approach could successfully reduce exposure to HAV to an acceptable level. This focuses on:

- Eliminating unnecessary tasks
- Limiting the amount of time spent using particular equipment
- Using only approved 'low-vibration' equipment
- Detailed monitoring of employees' exposure to HAV
- Clear training and communication on the everyday risks associated with HAVS.

## BETTER EQUIPPED

In 2005, a comprehensive survey of all our tools was undertaken to assess the degree to which they transmit HAV. We conducted tests to find the lowest-vibration tools on the market, and have since approved a budget to replace equipment with approved models across our business.

In another major development, we are looking to dramatically reduce the use of hand-held jack-hammers by rolling out the JCB 2CX Streetmaster across our operations. Trialled in our West Midlands operation in 2005, the Streetmaster uses a cabin-operated backhoe attachment to complete more than 80% of tasks previously requiring a jack-hammer. Following the trials and an awareness day for all the business areas hosted by JCB, 73 Streetmasters have already been earmarked for roll-out across the business in the first quarter of 2006 as the start of a significant shift in our ways of working.

## TIME FOR TAGS

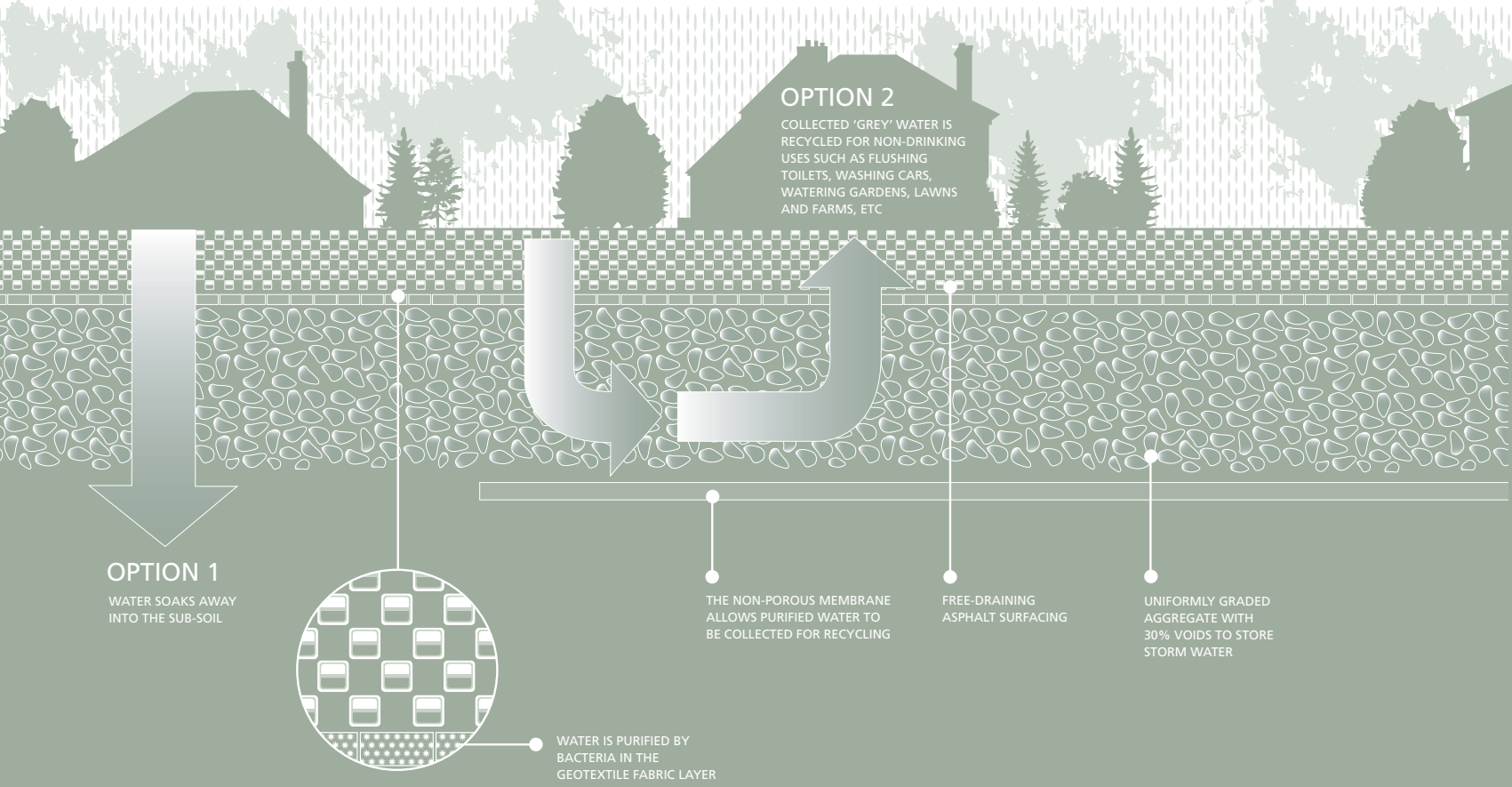
To complement our investment in new low-vibration equipment and tools, in 2005 we've introduced an effective yet easy-to-use 'tag' system, which will help employees to understand, monitor and control their exposure to HAV in whatever situation they are working.

Following on from our equipment survey, we've had tags specially produced for all our equipment specifying weight, noise level and vibration level. To help employees calculate how long they can use different pieces of equipment for without exposure to dangerous levels of HAV, a simple points system is used. The points marked on an item's tag are accrued by the employee per ten minutes of use; no more than 100 points should be accumulated by one person across all types of equipment on any one day.

To help signpost the risks, tags have been colour-coded in red, amber and green to represent high, medium and low vibration levels. To be rolled out across our workforce from early 2006, we believe this system represents another milestone in our ongoing commitment to protecting the health of our employees as a priority in everything we do.

"With new equipment in place and a comprehensive new monitoring system about to be rolled out, Tarmac is leading the field in its attempts to minimise the risks from HAV."

**KEN BRADLEY** National Contracting Sustainable Development Manager, Tarmac




CASE REPORT 3:

# 'CLEVER PAVEMENTS' FIGHT FLOODING

FLASH FLOODING CAUSES MISERY TO THOUSANDS AND COSTS THE INSURANCE INDUSTRY MILLIONS OF POUNDS, BUT TARMAC'S NEW 'RESERVOIR PAVEMENT' TECHNOLOGY, TARMAC AQUIFA™, COULD MAKE SUCH OCCURRENCES A THING OF THE PAST. THE NEW MATERIAL HOLDS, PURIFIES AND RECYCLES RAINWATER, AND COULD EVEN SIGNAL THE END FOR THE TRADITIONAL DRAINAGE SYSTEMS OFTEN OVERWHELMED BY TORRENTIAL DOWNPOURS.

## NATURAL PURIFICATION

Able to absorb up to 30% of its volume, Tarmac's Aquifa™ system allows water to permeate through the surface and collect in a 'geotextile' layer of naturally occurring bacteria. Here, impurities such as oil are broken down, sand and silt are trapped, and harmful heavy metals removed.

The rate the purified water is released into existing drainage can be controlled to reduce the risk of flooding. It can be released to permeate into natural watercourses or alternatively, fed into irrigational systems as 'grey water' – purified, but not of filtrated drinking quality – then captured and recycled for other purposes such as flushing lavatories. This will help to conserve household drinking water, 30% of which is currently flushed away.

"With nearly two million new homes required over the next 10 years and strong scientific evidence that the UK will experience warmer, wetter winters, the chance of more flash floods is a major concern for the construction and insurance industries. This product is a highly absorbent, robust and flexible material developed to withstand a 100-year storm."

**CLIVE FREEMAN** Director, Tarmac Infrastructure Solutions (TIS)

## A UK FIRST

With a patent pending, we are the first to the UK market after successful trials in Wolverhampton and Bristol, working with the Transport Research Laboratory in line with the Environmental Agency's Sustainable Drainage Systems (SUDS) strategy and guidelines. We developed the Tarmac Aquifa™ technology to be used in housing developments, retail and business parks, and car parks.

Similar technology has been successfully used in the United States and France over the last 20 years. In Bordeaux, for example, over 400 conventional drainage systems were replaced with reservoir pavement technology following torrential downpours in 1982.

"The system deals with the extreme effects of global warming, in that it prevents flash flooding, but also conserves valuable drinking water at times of potential drought."

**DR HOWARD ROBINSON** Head of Product Development, Tarmac

WORKING WITH SCHOOLS AND THE WIDER COMMUNITY IN NORTH WALES, SHROPSHIRE AND CHESHIRE, TARMAC'S MILLENNIUM ECO-CENTRE HELPS TO RAISE LOCAL AWARENESS OF THE IMPORTANCE OF RECYCLING AND WASTE MANAGEMENT, IMPROVES ENVIRONMENTAL KNOWLEDGE AND HIGHLIGHTS THE IMPORTANCE OF A MORE SUSTAINABLE LIFESTYLE THROUGH VOLUNTEERING AND EDUCATION.

### AN OUTDOOR CLASSROOM

The Eco-Centre was established in 1998 at Tarmac's Borras Quarry in Wrexham and attracts around 10,000 visitors a year. It combines key stage education with volunteer work, and promotes sustainable environmental practices designed to involve the whole community.

Our main involvement is to manage the quarry lifecycle programme, a long-term scheme to coordinate the quarry's restoration and preservation, aided by local businesses, and teachers and pupils from a local school, St Christopher's.

For example, the schoolchildren are involved in an extensive planting scheme, helping to transform this former airfield into a woodland of trees native to the immediate area – elder, ash, bay willow, English elm, birch, etc.

CASE REPORT 4:

# CONSERVATION AND THE COMMUNITY

Other hands-on educational experiences, including dry-stone walling and willow weaving workshops, also reinforce classroom learning.

Volunteering is the other important aspect of the Eco-Centre, with community allotments and work placements attracting volunteers interested in restoration and conservation work from as far away as Bulgaria and South Africa.

## EXTRACTING FUNDS

The Eco-Centre was also awarded £250,000 from the Welsh Assembly's Aggregates Levy Sustainability Fund. The fund, introduced in April 2002, is awarded to projects promoting an understanding of issues arising from aggregate extraction, and reducing its local impact.

"We've had visitors from around the globe at the centre, and can be proud to have such a successful environmental facility in the Wrexham area."

**NICK BALL** Quarry Manager, Borras

"It's a friendly place where people are welcome to stop by, have a cup of tea and see what's going on. Most of the people who get involved hear about us by word of mouth."

**JASON ORME** Project Manager, Millennium Eco-Centre

"The Welsh Assembly award recognises all the hard work that so many people have put into the centre. It really is a fantastic facility for the surrounding community, and the funding gives the centre a promising future, ensuring it will be a positive influence to many more people."

**ANDY SWINNERTON** Area Operations Manager, Tarmac

# SAFETY

IN THIS SECTION



ACROSS OUR DIFFERENT OPERATIONS, WE WORK IN A VARIETY OF POTENTIALLY HAZARDOUS ENVIRONMENTS, WHICH PRESENT RISKS ASSOCIATED WITH LARGE VEHICLES, ROCK FACES, HEAVY MACHINERY, EXPLOSIVES AND MORE BESIDES. NEVERTHELESS, WE FIRMLY BELIEVE THAT OUR OPERATIONS SHOULD NOT GIVE RISE TO ANY INJURIES TO EMPLOYEES, CONTRACTORS OR THIRD PARTIES – THIS IS A PRIORITY IN EVERYTHING WE DO.

Tragically in 2005 we suffered a fatality in the workplace. This is a matter of utmost concern to us and is of course an unacceptable breach of our high standards in safety management. While we have already made great strides towards our ultimate target of zero injuries in the workplace, there is still much to be done. Consequently, we have revised our strategy, as outlined later in this report.

## A CULTURE SHIFT: 2000 TO 2005

After our acquisition by Anglo American in 2000, we developed a comprehensive five-year strategy to radically transform the safety culture across Tarmac with the aim of eradicating all injuries and unsafe behaviour.

In the five years since its implementation, this has resulted in dramatically improved performance against a variety of key targets and, just as importantly, the creation of a 'safety first' culture throughout our business in which incidents and injuries are avoided through good management and adherence to safe working practices.

We have achieved an 83% reduction in the Lost Time Injury Frequency Rate (LTIFR*) in this five-year period – a quantum leap in performance which many considered unachievable.

## PERFORMANCE IN 2005

We suffered one fatal injury. Our belief is that it is only if we free the workplace of all unsafe acts and conditions that we will be sure to avoid fatal and serious injuries.

In 2005, our LTIFR has decreased from 0.67 in 2004 to 0.62 in 2005 – a 7.5% year-on-year improvement. We acknowledge that this represents a gradual slow-down in the rate of improvement seen in the context of a five-year period.

Our Lost Time Injury Severity Rate has reduced from 445 in the year 2000 to 240 in 2005. This is an overall improvement of 46% and testament to our continued commitment to the target of zero injuries in the workplace.

We also set ourselves a target for a minimum of 94% of our sites to be injury free in 2005. Across the 12 months, we achieved injury-free status across 92% of our sites, compared to 89% in 2004. Regrettably, we did not meet our target, but there is nevertheless a significant improvement over 2004. The fact that such a large proportion of our sites have already achieved injury-free status is a positive indication that this is a realistic and attainable goal.

## SAFETY STRATEGY 2006 AND BEYOND

Throughout 2005, we have been developing a revised safety strategy in collaboration with Anglo American. This will build on the strengths of our previous strategy while, at the same time, addressing our weaknesses and areas for improvement.

The new strategy represents a new and significant phase in our approach to safety management across all our operations. It supports our goal of creating an interdependent safety culture, where every member of our workforce takes responsibility both for their own safety and for the safety of others.

**CULTURE:** ZERO MINDSET

- We believe that all injuries and occupational illnesses are preventable.
- We are all responsible for preventing and correcting unsafe behaviour or work conditions.

**LEARNING:** NO REPEATS

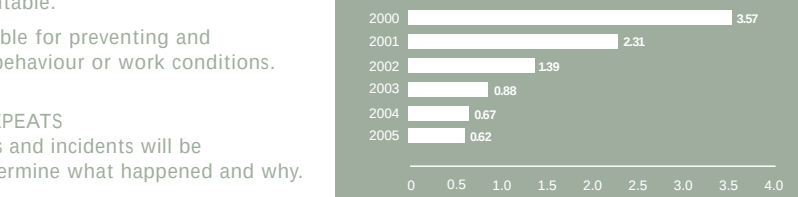
- All unsafe practices and incidents will be investigated to determine what happened and why.
- All necessary steps will be taken to prevent a recurrence.

**STANDARDS:** SIMPLE, NON-NEGOTIABLE STANDARDS AND RULES

- We will adopt common, simple and non-negotiable standards and rules across our group.

The new strategy is being launched and implemented over the next two to three years. We believe it will help us to deliver a step change in our safety performance and help to shape the way we work for years to come.

**TARMAC GROUP LTIFR 2000–2005**

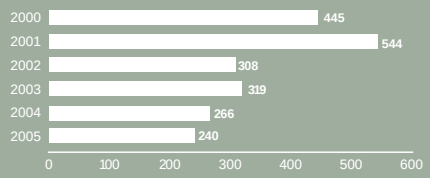



**Lost Time Injury**
Any injury that results in someone losing more than one full shift following an incident but which does not include any time lost on the day of the incident itself.

***Lost Time Injury Frequency Rate**

$$\frac{\text{Lost Time Injuries (LTIs) x 200,000}}{\text{Man hours worked}}$$

**TARMAC GROUP LTISR 2000–2005**




**Lost Time Injury Severity Rate**

Days lost due to Lost Time Injuries (LTIs) x 200,000

Man hours worked

## TARMAC SAFETY FILM WINS INTERNATIONAL AWARD

Strong and effective safety communications are essential to the success of our safety strategy, so we use a wide variety of methods to get our core messages across. In 2005, we brought to life the implications of not working safely in two dramatic safety films: *Once Too Often Dave*, which follows the misfortunes of three colleagues who repeatedly ignore the safety warnings of their supervisor; and *Never Walk By*, a film, created specifically for the National Contracting gangs carrying out resurfacing work, which highlights the hazards associated with this activity.

*Once Too Often Dave* scooped three awards at the 2005 US International Film Festival including the top prize for an employee safety film, the Golden Camera Award. More importantly, it is being shown across Tarmac sites in the UK and also forms part of the site induction process for contractors, new recruits and visitors – playing an important role in helping to create and maintain our strong safety culture.

# HEALTH

IN THIS SECTION



ALONGSIDE THEIR PHYSICAL SAFETY, WE REGARD SAFEGUARDING THE HEALTH OF ALL OUR EMPLOYEES AND CONTRACTORS AS A KEY PRIORITY. TO ACHIEVE THIS, WE TAKE A PROACTIVE APPROACH TO OCCUPATIONAL HEALTH ISSUES AND HAVE INTRODUCED PREVENTATIVE MEASURES TO COMBAT HEALTH RISKS ACROSS ALL ASPECTS OF OUR BUSINESS.

## OCCUPATIONAL HEALTH STRATEGY

Working in heavy industries, our businesses can present a range of potential health hazards including noise, dust, hand arm vibration and skin irritants. We take these and other such risks very seriously indeed, aiming to eliminate exposure to hazards or, where this is not possible, to control exposure at levels which will not cause harm.

Following its launch in 2004, we continued to implement our new Occupational Health Strategy in 2005 throughout the different Tarmac businesses. Based on the Anglo American Occupational Health guidelines, the strategy sets out a rigorous and comprehensive approach to eliminate the conditions and behaviours that cause health risks across our workforce.

In 2005, each of our businesses completed an occupational health risk assessment to identify and, where possible, eliminate health risks for all employees. This included reviews of occupational hygiene, risk and health monitoring data in each business, with the goal of creating a new benchmark against which future performance can be measured.

## HEALTH SCREENING

We believe that effective health screening is an essential part of our Occupational Health Strategy, helping us check the effectiveness of control measures, monitor performance, and modify behaviours and working practices where appropriate.

Through our rolling three-year health screening programme, we have established an accurate baseline of performance indicators, which enables us to focus on key areas of priority as and when necessary. In particular, we have been looking at the prevalence of four conditions historically associated with working in the construction, building products and mineral extraction industries:

| NUMBER OF EMPLOYEES AFFECTED | |
|---|---|
| NOISE-INDUCED HEARING LOSS | 2,535 |
| HAND ARM VIBRATION SYNDROME | 446 |
| DERMATITIS | 12 |
| OCCUPATIONAL LUNG DISEASE | 4 |

Employees with these conditions have not necessarily acquired them from working at Tarmac – we have had strict preventative measures in place for many years to help avoid such occurrences. Many cases are in fact a legacy of years spent working in heavy industries – possibly for a number of employers – in environments that would not meet today's more health-conscious standards.

While we cannot change the past, we are committed to safeguarding the health of our employees to the best of our abilities. As a part of our new Occupational Health Strategy, we have set ourselves the goal of eliminating any new cases of noise-induced hearing loss, Hand Arm Vibration Syndrome (HAVS), dermatitis and occupational lung disease that can result from workplace activities. We have introduced important measures and ways of working to achieve this aim and we will be reporting on our performance in due course.

## HAND ARM VIBRATION

In the construction and related industries, use of hand-held pneumatic tools has long been an everyday feature of workers' lives. However, these tools are not without risks; excessive use can lead to cases of HAVS, which in turn may cause reduced manual dexterity, poor circulation and chronic pain.

HAVS is an issue we have always taken very seriously, and we have strict guidelines in place to avoid hazardous levels of exposure. In 2005, we made some major strides forward in this area. With the trialling of new equipment and new ways of working, we believe we can eradicate completely the risk of HAVS across our workforce – see our Case Report on pages 6 and 7 for details.

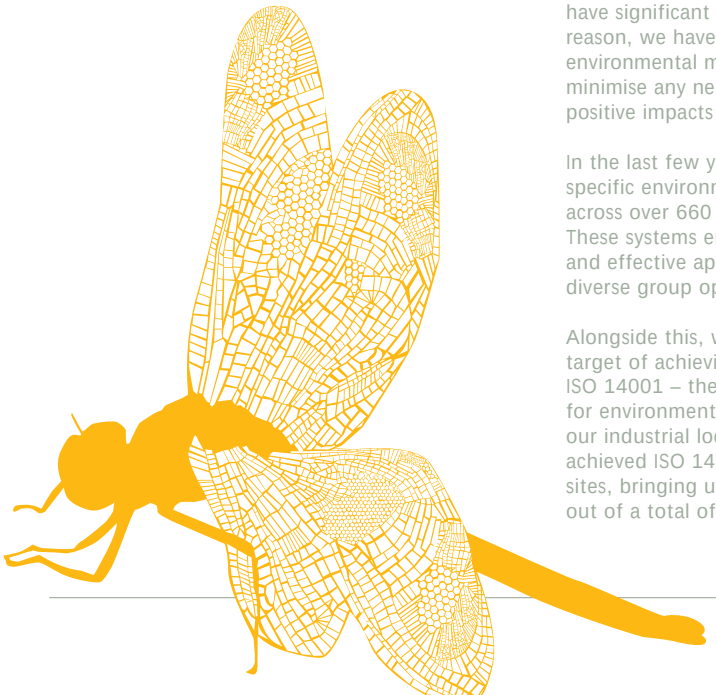
## LOOKING FORWARD: 2006 AND BEYOND

2005 is the first year in which we have begun gathering accurate totals of cases of work-related ill health across the group. The figures that we report on this year will provide us with a starting point from which we can measure our progress in subsequent years. We will continue to refine and build on the data that we have now begun to gather, monitoring the progress of existing cases and any new cases that arise.

# ENVIRONMENT

IN THIS SECTION





AT TARMAC, WE ARE COMMITTED TO OPERATING IN AN ENVIRONMENTALLY RESPONSIBLE MANNER BY UNDERSTANDING AND CONTROLLING THE IMPACTS OF OUR OPERATIONS IN BOTH LOCAL AND GLOBAL CONTEXTS. OUR GOAL IS ONE OF CONTINUOUS ENVIRONMENTAL PERFORMANCE IMPROVEMENT ACROSS ALL ASPECTS OF OUR BUSINESS AND THE ONGOING DEVELOPMENT OF SUSTAINABLE PRACTICES WHEREVER WE ARE WORKING.

## ENVIRONMENTAL MANAGEMENT

Working in quarrying and other related industries, we recognise that the nature of our business can have significant effects on the environment. For this reason, we have developed a strategic approach to environmental management, which aims to minimise any negative effects and increases the positive impacts of the work that we do.

In the last few years we have introduced site-specific environmental management systems across over 660 of our industrial sites worldwide. These systems ensure that we have a consistent and effective approach across a geographically diverse group operating in 12 countries.

Alongside this, we have also set ourselves the target of achieving third-party accreditation to ISO 14001 – the recognised international standard for environmental management systems – across all our industrial locations by 2007. During 2005, we achieved ISO 14001 certification in a further 53 sites, bringing us to a total of 523 certified sites out of a total of over 680 worldwide.

## RESOURCE USE

We are very much aware of the lifecycle of our operations throughout the different aspects of our business, and this applies equally to the natural resources we use in our products.

While such geological resources are finite, Tarmac's products are not simply 'consumed' when used in construction. In fact they are often recycled when buildings and roads come to the end of their life and used again to build the new houses, roads, schools and hospitals that are needed to sustain our society.

The challenge for a responsible business such as Tarmac lies in finding locations where quarrying is both economically viable and can be made environmentally acceptable – our Environmental Policy helps us to decide when and where this is possible.

## CLIMATE CHANGE

It is widely recognised that climate change is a major global issue and that the use of fossil fuels is a contributory factor in this process. We take this issue very seriously indeed and believe that it is the duty of every business and every employee to act responsibly and proactively with regard to energy consumption.

We also believe that, as energy costs continue to rise, any reduction in our overall energy use makes sound business sense as well as helping to address important environmental concerns.

In 2004, Tarmac UK produced an overview of the energy profile of its business including a review of the technologies in use and a comprehensive assessment of energy-saving opportunities.

Building on our major energy policy review in 2004 and the establishment of our 10-year target to reduce specific energy consumption per unit of production by 15% by 2014, we have continued to make significant progress in the UK in 2005. The UK accounts for 89% of Tarmac's total energy use. Through a variety of initiatives and ongoing energy-efficiency improvements, we have reduced our specific energy consumption by 6.1% in comparison to the restated figures for 2004.

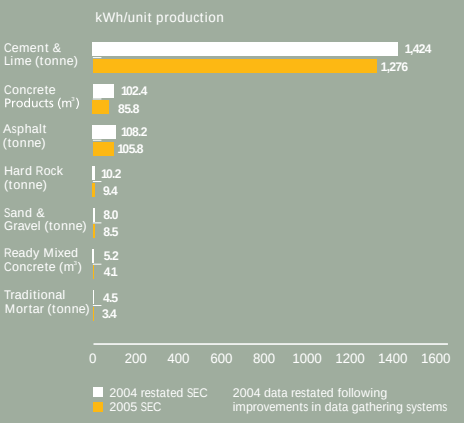
The SavE Energy (SavE) campaign to promote efficient energy usage has continued to gather momentum in 2005. More than 200 employees have been trained in energy awareness and a booklet providing practical guidance on how to reduce energy consumption was circulated to every employee in the UK during the course of the year.

This campaign has a very high profile in Tarmac and its importance is reflected in the appointment of two full-time Energy Managers in 2005 – one for our Building Products stream and the other for our Aggregate Products stream – to ensure its effective implementation and drive performance improvements. To support them, Energy Champions have been identified in each of the businesses to take responsibility for meeting targets, raising awareness and managing change across specific sites and operations.

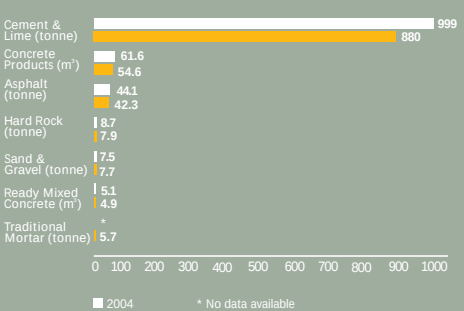
Building on the data gathered in 2004, we have continued to collect monthly energy consumption statistics for each of our 550 Tarmac UK operations throughout 2005 in order to establish accurate benchmarks for different product groups. Using this information, we have been able to identify both the best performers and areas for improvement – in turn providing us with the information to develop site-specific action plans to reduce energy consumption across all sites and to create a company-wide resource for the sharing of best practice in this area.

These site-specific action plans will continue to be implemented throughout 2006 and beyond. Nevertheless, some important improvements have already been achieved, including: the insulation of aggregate dryers at asphalt plants; reviewing compressed air systems; and installing variable speed drives and using energy-efficient motors.

### TARMAC GROUP SPECIFIC ENERGY CONSUMPTION 2004 AND 2005




### TARMAC GROUP KG OF $CO_2$/UNIT OF PRODUCTION 2004 AND 2005



## WASTE MANAGEMENT

Tarmac is committed to minimising waste as a key element of our environmental policy and 2005 has seen some notable achievements in this area:

- an increase in recycling activity, including the recycling of waste that would previously have been sent to landfill
- a marked reduction in the total of waste sent to landfill.

While the total amount of waste sent for licensed disposal has increased by 15.5%, from 349,000 tonnes in 2004 to 403,538 tonnes in 2005, this is because our recycling business is now able to accept waste from highway and utility maintenance works. This material, with its high proportion of fine clay, has traditionally proven difficult to turn into a resalable product. However, after making improvements to processing methods and equipment, we are now able to extract a saleable aggregate from 30 – 40% of highway and utility waste. An added advantage is that by introducing this recycled material back into the supply chain, the need for new material is also reduced.

Excluding the waste passing through our recycling business, the total tonnage sent to landfill from our production operations has actually reduced by 10.6%, from 236,000 tonnes in 2004 to 211,000 tonnes in 2005. This shows real progress towards our target of a 25% reduction of waste sent to landfill by 2010 as a direct result of the changes made to Tarmac's production processes.

The majority of our waste comes from the production of aggregates rather than quarrying, asphalt or concrete production. In addition to mineral waste, there is inevitably an amount of operational waste produced. The graph on page 20 shows how the total amount of waste for 2005 was distributed.

## BIODIVERSITY

Quarrying operations can have an impact on local environments, and with more than 200 active quarries covering 10,300 hectares, we are very aware of our interactions with many different species and habitats.

Our role is to balance society's need for the materials we provide with its responsibility to help safeguard natural habitats. Although we aim to minimise any disturbance to natural habitats caused by our activities, sometimes it is unavoidable. Our response to this is to redevelop sites once aggregates have been extracted in a way that restores habitats for plants and animals, or even creates them.

As such, we have set ourselves the target of introducing site-specific Biodiversity Action Plans (BAPs) at all active mineral extraction sites by 2008. In 2005, we made progress towards this target by developing and testing a detailed template for creating these BAPs.

To date we have introduced 11 BAPs across our UK operations, two of which have been reviewed

### GARSTANG CONCRETE PLANT – JUST 20 TONNES OF WASTE IN TWO YEARS!

The introduction of a simple but highly effective system has achieved some significant waste reduction results at our Garstang Ready-Mixed Concrete Plant in the North West of England – a total of just 20 tonnes of waste sent to landfill throughout 2004 and 2005!

The system, which is also achieving similar results at our Poulton-le-Fylde operation in Lancashire, UK, relies on the use of 'wedge pits' – a wedge-shaped concrete settlement bay into which waste washout from our concrete truck mixers is discharged. The sloping floor of the bay means that aggregate 'fines' settle at the bottom and can be removed and remixed with the aggregate feed stock, while the water flow in suspended solids is recirculated from the pits and reused in production.

"To create such a small amount of waste from a plant producing nearly 90,000 tonnes of concrete during this period is a fantastic achievement, but it's a very simple system that we've made work through the commitment of everyone here to use it consistently."

**JOHN NOBLET** Plant Supervisor, Garstang

by Anglo American. In 2005, we also held a workshop in the UK for all of our international businesses, which focused on the purpose and practicalities of BAPs and how they can be successfully implemented in different environments. We plan to continue the process of preparing site-specific BAPs in 2006.

Our BAPs will form an integral part of our Environmental Management System, and we are coordinating our aims and activities in line with biodiversity plans produced by both national and local government in order to produce the most effective site-specific responses.

## WATER USE

There is a significant difference between how water is used in aggregate production and its usage in concrete production.

Most of the water used in quarries for aggregate production is collected on site; this untreated water is used for product washing or dust suppression, and the vast majority is returned to either groundwater or surface water courses, with very little lost to the environment.

In contrast, treated or potable (drinking) water is often needed for the production of ready-mixed concrete and mortar and concrete products, where supply of untreated water by direct abstraction from the aquifer by borehole is not possible.

The treatment of water to make it potable requires significant amounts of energy (0.5kWh per cubic metre) and also places a strain on already limited water resources. For these reasons, in 2002 we set ourselves the target of reducing our potable water consumption per cubic metre of concrete and mortar and concrete products by 4.3% by 2010.

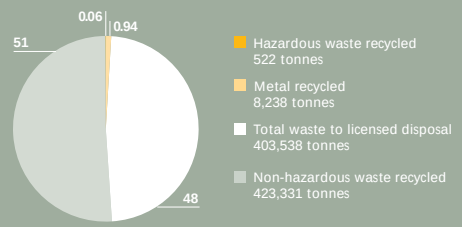
### LOOKING FORWARD: 2006 AND BEYOND

Throughout 2006, we will continue to work towards our key environmental performance targets:

- To complete ISO 14001 environmental management certification by 2007
- To reduce specific energy consumption by 15% (based on 2004 usage) by 2010
- To reduce specific potable water consumption in the production of mortar and concrete products by 4.3% by 2010 (based on 2002 usage)
- To reduce waste sent for licensed disposal by 25% by 2010 (based on 2004 quantities)
- To implement Biodiversity Action Plans at all active mineral operations by 2008.

### TOTAL WASTE GENERATED IN 2005

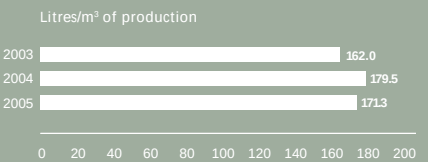
**(INCLUDES WASTE FROM TARMAC RECYCLING BUSINESS) %**




### TOTAL WATER CONSUMPTION


### POTABLE WATER CONSUMPTION

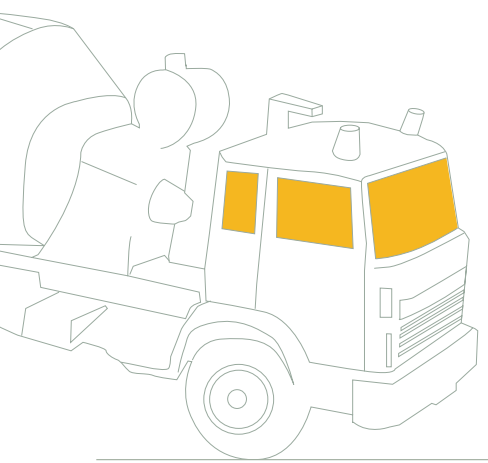
**FOR CONCRETE, MORTAR AND CONCRETE PRODUCTS**



# SOCIETY

IN THIS SECTION





AS A LARGE ORGANISATION OPERATING IN MANY DIFFERENT AREAS ACROSS THE WORLD, WE BELIEVE THAT WE HAVE AN IMPORTANT CONTRIBUTION TO MAKE BOTH TO SOCIETY AS A WHOLE AND TO THE INDIVIDUAL COMMUNITIES IN WHICH WE WORK.

We look to achieve this by developing strong, open and constructive relationships with all our stakeholders: customers, employees and contractors, suppliers, governments and regulatory authorities, business organisations and other interested groups, and – very importantly – our neighbours in the local community.

Although we have much anecdotal evidence that good practice exists throughout the business, we also recognise the need to provide accurate figures to confirm this and to help identify other future opportunities. Next year we will include data that will demonstrate Tarmac's contribution to its local communities, whether it be attendance figures at one of our many open days, the financial investment we make to community projects or the diversity of our employees.

## BUSINESS PRINCIPLES

As a leader in our field, we believe that we have a responsibility to conduct our business straightforwardly, reliably and with integrity at all times. To help us achieve this, a rigorous set of Business Principles guides the way we work and promotes a consistently high standard of conduct across all our operations.

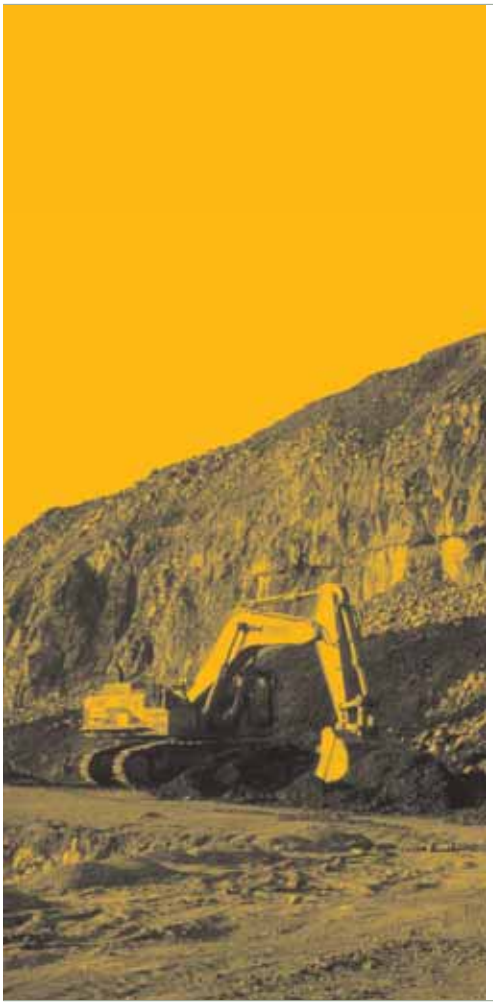
## SPEAK UP

In 2005, we introduced a free and confidential 'Speak up' phone service for our UK business, which is available for all employees to report any issues regarding the integrity of our operations that may concern them. It is our intention to introduce similar services across all our international operations, helping to develop and maintain the culture of integrity that is essential to the way we run our business.

## NOISE REDUCTION

We are aware that noise pollution from some of our operations has the potential to disturb our neighbours. As a result, we are constantly looking at ways in which we can minimise any adverse impacts on local communities across our various activities.

In 2005, we began the implementation of an innovative new piece of equipment that will help reduce noise pollution from our vehicles for nearby



communities. By using a broadband 'white noise' sound wave to indicate when a vehicle is reversing, the bbs-tek system, devised by Brigade Electronics, emits a signal that is less piercing and intrusive than the traditional bleeper warning. It emits a broader range of soundwave frequencies so that while the signal is easily identifiable and localised at close range, it degrades rapidly over long distances thereby reducing disturbance to neighbours or others in the vicinity.

This system is being specified as standard in all new vehicles that require a reverse-warning signal across our fleet, and is also replacing existing bleeper systems that are brought in for repair.

## EDUCATION – VIRTUAL QUARRY

Tarmac has played an important role in the development of an exciting new educational resource developed by the Quarry Products Association – the Virtual Quarry website. Modelled on our own Stancombe Quarry in Somerset, this site provides a fun and interactive introduction for children to the world of quarrying and a substantial resource for teachers.

Visitors are taken on a tour of the Virtual Quarry by a team of animated characters who explain where the materials for our buildings and roads come from. On the way, youngsters can take part in educational activities such as piloting a rock delivery truck, activating a quarry blast or transforming an old quarry into a nature reserve.

The Virtual Quarry also provides access to a substantial learning resource covering key stages 1 to 4 of the National Curriculum. The site includes more than 20 complete teaching units developed against the schemes of work recommended by the Department for Education and Skills – take a tour at www.virtualquarry.co.uk

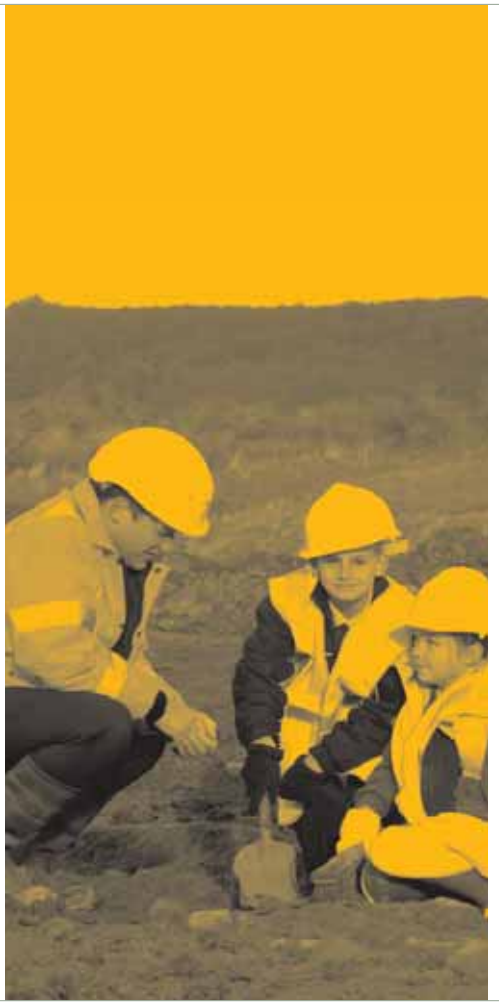
## INVESTING IN PEOPLE AND THE WORKPLACE

Our commitment to creating a workplace that recognises talent and encourages personal development begins even before we formally take on new employees. Each year, as part of Anglo American group's continuing mission to support undergraduate education, Tarmac offers a number of Student Technical Experience Programme (STEP) placements to students studying a mining-related discipline.

First-hand industry experience with Tarmac is all the confirmation many undergraduates need to embark on a career with us. Our comprehensive graduate training scheme has been in operation for 10 years and gives new employees 12 months of hands-on preparation in all areas of the business. Training takes place both on- and off-site, under the close watch of a mentor or coach. It also offers opportunities for those working in specialist areas, such as finance and engineering, to deepen their knowledge and earn qualifications while they work.

Tarmac is accredited as an Investor in People organisation. The Investors in People Standard helps organisations improve performance through the management and development of their people. We take our responsibility as an Investor in People seriously and, as such, aim to ensure that employees with potential are recognised, developed and rewarded for their achievements. This ethos is key to the running of Tarmac's Emerging Talent Initiative, which aims to give promising individuals the opportunities to realise their potential in their chosen field.

We also recognise that, as employers, we have a duty of care to our employees. The Employee Assistance Programme (EAP) was formally established early in 2005 and is open to all employees across the business who may have particular worries, concerns or issues relating to their personal circumstances or work life. The service is confidential and run by an independent company that can provide counselling in person or over the phone.



PLAY SAFE... STAY SAFE... TARMAC IS COMMITTED TO ENSURING THAT THE PUBLIC DON'T PUT THEMSELVES IN DANGER BY ENTERING OUR SITES. IN PARTICULAR, YOUNG PEOPLE ARE SOMETIMES TEMPTED TO GAIN ACCESS TO LOCAL QUARRIES AS AN AREA FOR PLAY AND ADVENTURE – ACTIONS THAT CAN PUT THEIR OWN SAFETY AND THE SAFETY OF OTHERS AT RISK.

In the UK, we've been working with the Quarry Products Association for many years as an active participant in its Play Safe... Stay Safe... campaign, which warns children and teenagers about the dangers of trespassing and playing in quarries.

In the Midlands, our involvement with the Play Safe... Stay Safe... campaign was highlighted through a special award at the Quarry Product Association Health & Safety Awards 2005. Dave Pargeter, our Dene Quarry Manager, was presented with an award at the ceremony in London in recognition of his contribution to the campaign and, in particular, for the relationship he has built with the local secondary school in Wirksworth.

# BUILDING ON PROGRESS A MESSAGE FROM OUR CEO

WE, IN TARMAC, ARE COMMITTED TO MANAGING CAREFULLY THE IMPACT OF OUR OPERATIONS ON PEOPLE AND THEIR ENVIRONMENTS; TO ENGAGING WITH THE COMMUNITIES IN WHICH WE OPERATE AND TO CONTRIBUTING POSITIVELY TO THEM; AND DOING ALL THIS IN A MANNER THAT IS FAITHFUL TO OUR CORE VALUES OF BEING RELIABLE, UNDERSTANDING AND RESPONSIVE, AND STRAIGHTFORWARD TO DEAL WITH.

In 2005 we made significant advances across a variety of areas, but this is no cause for complacency on our behalf. Tragically, a fatal injury occurred in our business in Oman during this period. Along with a slowdown in the rate of improvement in our overall safety performance, this led us to conclude that we needed to conduct a comprehensive review of our safety strategy.

Our revised strategy will be implemented throughout 2006 and beyond and will be instrumental in the development of an interdependent safety culture, where people work safely, looking out for one another. The clarification of what is expected of front-line and middle management is a key aspect of this strategy and substantial training resources will be directed towards this area. In 2005, 92% of our sites worldwide were free of Lost Time Injuries (LTI) and we are determined that all of our sites should reach this important standard of zero LTIs.

It is equally important that we operate in a way that does not harm the health of those who work for us. In 2005 we made substantial progress in ensuring that health screening is mandatory for all employees working in risk situations. This allows us to assess and monitor the health impact of their activities while ensuring that conditions or practices are not causing or progressing occupational illness.

As this report has outlined, we have made important progress in environmental performance against targets for the reductions of emissions, waste to landfill, water consumption and a particularly notable 6.1% reduction in specific energy consumption in our UK business. We have also set ourselves challenging targets which will help to drive continued improvements in our environmental performance across all aspects of our businesses.

We have been working hard throughout the communities in which we operate to minimise any negative effects that might result from our activities and to make a full and positive contribution where this is possible. Our commitment continues to bring tangible benefits in many areas from educational activities to noise-reduction strategies.

I am proud of the very real progress that is outlined in this report. More importantly, we are committed to building on the strong foundations that we have achieved and I look forward to reporting on our further progress next year.

ROBBIE ROBERTSON
Chief Executive Officer
Tarmac Group

Tarmac

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If you have any comments on this report, please write to the safety, health and environment department at the address above.
Or email us at reporttosociety@tarmac.co.uk

The report is also available on the Tarmac website: www.tarmac.co.uk



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