The Scaw Metals Group Sustainable Development Report 2004

SCAW METALS GROUP

content

Sophistication Sustainability

chairman's review

2004 has been a successful year in many facets of Scaw Metals' business, some of which are outlined later in this report. The group is critically aware of the business imperative to address sustainable development issues and of its social responsibility to report on these to its stakeholders.

This past year has again seen significant engineering activity. Two major projects, the foundry sand reclamation plant and the fume extraction system for the main melt shop, were successfully commissioned. The sand reclamation plant has assisted the foundry in producing a greater number of railway frames for export and at the same time reclaiming up to 80% of the sand used in the process. The melt shop fume extraction system has made an important improvement to air quality in the area and positive feedback has been received from the neighbouring community. There are also a number of other projects in progress.

The Scaw Metals Group is committed to sound environmental management and all major sites are ISO 14001 certified. As regards safety and health, external audits are carried out and sites are accredited on either the OHSAS 18001 or NOSA systems. Scaw Germiston achieved a NOSA 5 star platinum rating and is the first steel manufacturing company to achieve this in South Africa.

The group is very aware of global warming and the impact that gases such as carbon dioxide have on the global climate. As a result, Scaw critically evaluates its energy consumption, ensuring that it measures it accurately, and is implementing 'real time' measuring systems to assist with the reduction of energy consumption wherever possible.

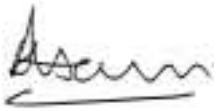
Safety performance has shown very gratifying improvements and the Lost Time Injury Frequency Rate has more than halved to 0.36. It remains a firm commitment to reduce this to zero over the next 2-3 years. A significant contribution to safety has been made by the Behaviour Based Safety initiative put into place in our factories, which has now become entrenched and accepted by the workforce.

Scaw Metals has fostered open and constructive dialogue with neighbouring communities and the group continues to sponsor worthwhile community projects.

Tony Harris, executive chairman, Scaw Metals Group.

Management is proud of the new Community Training Schools for computer literacy and welding skills. It is believed that these initiatives will assist many youngsters from disadvantaged backgrounds to gain employment.

The Scaw Metals Group is always keen to build on its progress. Any comments you may have on this report would be appreciated. Kindly complete the questionnaire at the end of the report and return it to me.

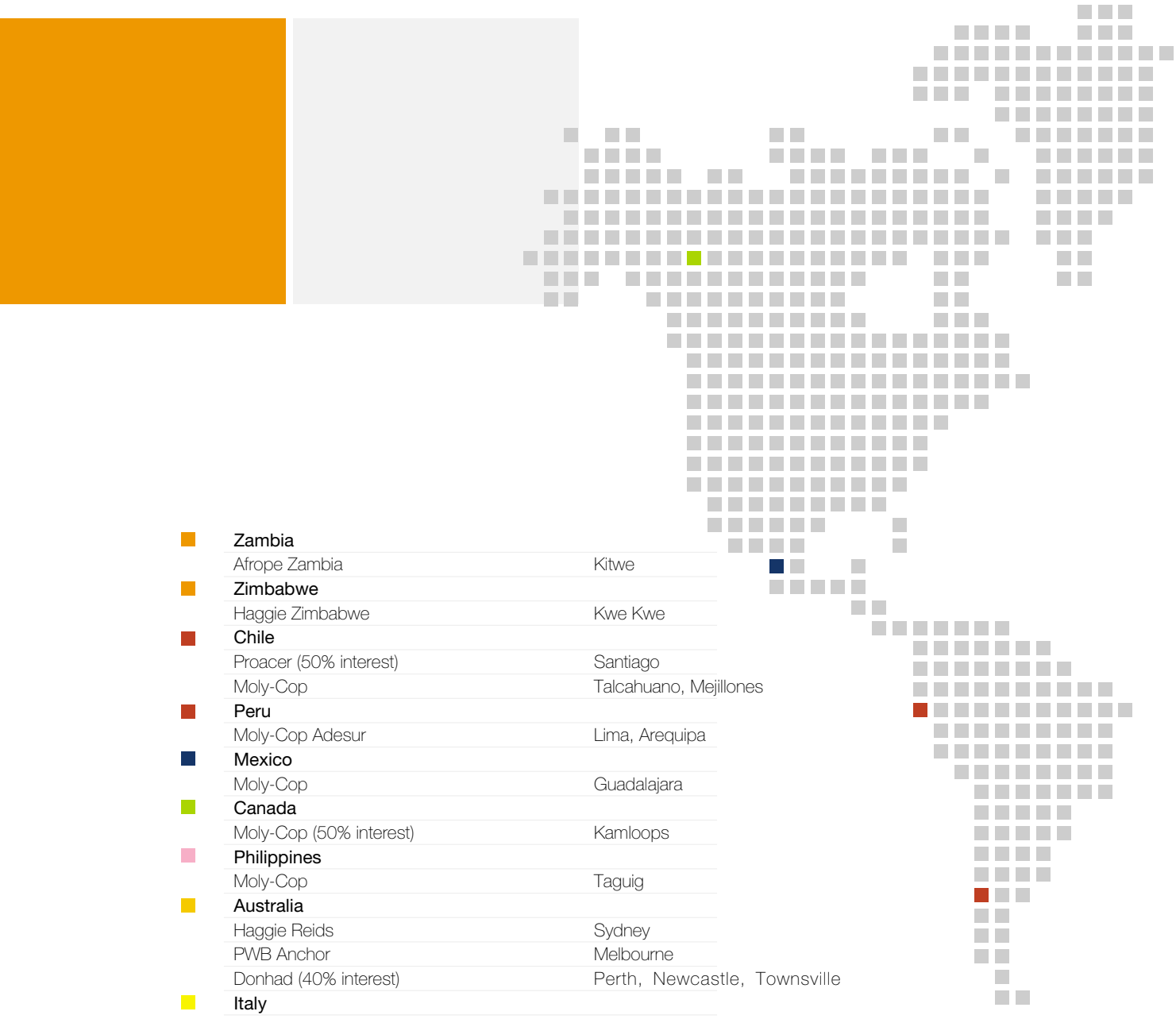


Tony Harris

"Scaw Metals Germiston achieved a NOSA 5 star platinum rating and is the first steel manufacturing company to achieve this in South Africa"

factory sites worldwide

South Africa	
Rolled and Cast Products	Germiston
Rand Scrap Iron	Germiston
Cast Products	Benoni
Flather Bright Steels	Springs
Haggie® Steel Wire Rope	Johannesburg
Wire and Strand	Germiston
Fibre Products	Durban
Chain Products	Vereeniging
Consolidated Wire Industries (50% interest)	Vanderbijlpark



Zambia	
Afrope Zambia	Kitwe
Zimbabwe	
Haggie Zimbabwe	Kwe Kwe
Chile	
Proacer (50% interest)	Santiago
Moly-Cop	Talcahuano, Mejillones
Peru	
Moly-Cop Adesur	Lima, Arequipa
Mexico	
Moly-Cop	Guadalajara
Canada	
Moly-Cop (50% interest)	Kamloops
Philippines	
Moly-Cop	Taguig
Australia	
Haggie Reids	Sydney
PWB Anchor	Melbourne
Donhad (40% interest)	Perth, Newcastle, Townsville
Italy	
GSI Lucchini (30% interest)	Piombino

distribution network

■	**South Africa**	
	Boksburg	Cape Town
	Carletonville	Durban
	East London	Klerksdorp
	Kuruman	Mossel Bay
	Newcastle	Pietermaritzburg
	Port Elizabeth	Richards Bay
	Witbank	
■	**Namibia**	
	Windhoek	
■	**Zimbabwe**	
	Bulawayo	Harare
■	**Australia**	
	Sydney	
	Perth	

"the group seeks mutual benefit in its relationships with customers, partners, contractors and suppliers"

group profile

"supply to the construction, railway, power generation, mining, cement, marine and agricultural markets worldwide"

The Group

The Scaw Metals Group is an international group, wholly owned by Anglo American plc, manufacturing a diverse range of steel products. Its principal operations are located in South Africa and South America.

The group consists of five main product lines: rolled steel, wire rope and strand, chain, forged steel and cast alloy iron grinding media, and cast steel and alloy iron foundry products.

The South African facilities produce steel wire rope, pre-stressed concrete wire and strand, reinforcing bar, wire rod, cast and forged grinding media, steel castings, high chromium iron castings, and plain carbon and low-alloy steel chain and fittings, supplied to the construction, railway, power generation, mining, cement, marine and agricultural markets worldwide.

Major exports from South Africa include reinforcing bar, low- and high-carbon wire rod, and pre-stressed concrete wire and strand to the international construction industry, coal grinding components to power stations in Europe, China and Mexico, cast steel railway components to North America and Africa, and steel wire rope and wire products to global mining and offshore oil markets.

The group's forged steel grinding media division, Moly-Cop, has its major operations in the large and growing mining markets of Chile and Peru, with other forged steel grinding media operations in the Philippines, Mexico, Australia, Canada and Italy.

The group is an ISO 9000-series certified organisation and manufactures its products to meet the requirements of the appropriate international certification authorities.

Safety, Health and Environment

Major operations are ISO 14001 certified and the group is committed to operating effective management systems and employing preventative measures in compliance with all relevant occupational safety, health and environmental legal requirements.

Divisions

Rolled Products

The rolling mill operations comprise a forged steel grinding media plant and two rolling mills; one producing low- and high-carbon wire rod and a range of merchant bar, the other producing light and medium sections. Steel is produced in an 85 tonne UHP-EBT arc furnace and ladle furnace combination, which feeds a three strand, high speed, continuous billet casting machine. The caster is equipped with convex water-cooled moulds that allow for high casting speeds and the manufacture of high quality steels. Scaw Metals Germiston uses a high proportion, up to 60%, of directly reduced iron (DRI) in its furnace charge. The DRI is produced from three coal-based rotary kilns located at the site.

The rod bar mill has a 100 tonne per hour, walking beam re-heat furnace, 21 stands in line and two outlets, a cooling bed for straight products of up to 70mm diameter and a 10 stand, high speed, wire rod mill with controlled cooling facilities for wire rod of up to 18mm diameter.

The section mill has a three-high tilting table breakdown mill and one two-high sizing mill that feeds either a medium section train that produces channels and equal and unequal angles, or a ten stand continuous small section and bar train for smaller angles and flats.

"The Scaw Metals Group is an international group, wholly owned by Anglo American plc, manufacturing a diverse range of steel products"

Cast Products

The Germiston foundry is one of the largest foundries in the southern hemisphere and produces castings of up to 30 tonnes finished weight. It is a leading supplier of single-piece, thin-walled locomotive and passenger frames, freight car components and high integrity cast steel railway wheels. The foundry holds the American Association of Railroads' approval for the manufacture of freight car side frames, bolsters and cast steel wheels. Other products include large gear segments, high-carbon, high-chromium, abrasion resisting coal grinding elements for coal-fired power stations, high-chromium iron mill liners and impact crushing parts, stainless steel coiler drums, and a range of slag ladles for the metals processing industry.

A 25 tonne capacity ladle vacuum degassing unit serves the foundry where steels can be produced with lower sulphur, nitrogen, oxygen and hydrogen contents, particularly necessary for the manufacture of high strength, low-alloy steels. A specialised foundry facility also produces a full range of cast, heat-treated, high-carbon, high-chromium iron grinding media for use in platinum, copper, coal and gold sand regrind applications.

The Benoni works manufactures a wide range of earthmoving components under licence from the ESCO Corporation, USA, and general engineering products in plain and low-alloy steels of up to eight tonnes finished mass. Other products include manganese wear components for gyratory crushers.

Both foundries are serviced by a large in-house machine shop. Facilities include vertical and horizontal boring mills, CNC machining centres, lathes and planers. Castings of 25 tonnes and five metres in diameter can be machined to close tolerances. Smaller castings that require CNC batch production runs are also made.

Moly-Cop® Grinding Systems

This operation produces a complete range of forged steel heat-treated grinding media in sizes from 1 inch to 7 inches in diameter and has a total installed capacity of over 700 000 tonnes per year. The various manufacturing facilities are strategically located in Chile, Peru, Mexico, Australia, the Philippines, Italy and Canada, and satisfy the regional demands of the world's mining companies.

Moly-Cop's global network of shared technical, manufacturing and marketing knowledge has enabled it to capture a leading market share in each of the primary markets in which it competes.

Chain Products

This operation produces a comprehensive range of carbon and alloy steel chains and fittings to national and international standards. Its range of products is used extensively in mining, forestry, agriculture, fishing, offshore oil exploration and other industrial applications.

Steel Wire Products

This business consists of two manufacturing plants supported by associated sales and distribution centres in South Africa, together with operations in Zimbabwe and Zambia. The operations' main activity is the conversion of steel wire rod into a range of wire products, supplying markets as diverse as mining, construction, marine, engineering, elevator, offshore oil and electrical reticulation. A large proportion of its output is exported worldwide.

The Jupiter Steel Wire Rope operation is the world's largest integrated wire mill and ropery plant, manufacturing a wide range of specialised ropes. It is an acknowledged world leader in the manufacture of steel wire ropes for ultra-deep shafts supplying, for example, ropes to the 3 170m-deep single shaft in the AngloGold Moab Khotsong Mine in Orkney, South Africa. The Germiston Wire and Strand operation has three major product lines: pre-stressed concrete wire and strand, mining commodity rope and high-carbon wire. Pre-stressed concrete strand has been supplied to many prestigious projects worldwide, including the Rama VIII Bridge in Thailand, the Hong Kong Airport Project and the Mandela Bridge in South Africa.

Sales Branches

Scaw's operations are supported by a network of service centres that are staffed by trained specialists to provide on-site technical support. These centres offer a range of testing and termination services and stock a wide range of wire rope and chain fittings, lifting equipment and related hardware.

Consolidated Wire Industries (50% owned)

Consolidated Wire Industries produces a full range of mild steel wire in both black and galvanised finish. These products are further converted into Diamond Mesh and Veldspan fencing, nails, staples, barbed wire and copper-coated electrode welding wire.

"Scaw Metals' major operations are ISO 14001 certified"

governance and business principles




Scaw Germiston's railway products are supplied to rail networks in Africa and the US.

Governance and Business Principles

- The Scaw Metals Group, is committed to complying with Anglo American's "Good Citizenship: Our Business Principles" and safety, health and environment policies. These are published widely and are incorporated in new contracts, letters of appointment and induction training of new employees. They are also promoted through the Scaw Metals' newsletter, Scaw Junction, and in the interaction between management and employees.
- Communication with stakeholders is promoted actively and regularly through a number of channels such as this publication and Scaw Junction, both of which are sent to all employees, key suppliers, customers, community representatives and entities associated with our operations.
- The group has participated in Tip-Offs Anonymous since 1999 and continues to publicise this "whistleblowing" scheme to facilitate business integrity and ethics.
- In 2004, nearly 3 million Rand was spent on community engagement projects aimed at enhancing the well-being and capacities of communities associated with the business.
- Sustainable development risks are managed through both the Turnbull Risk Management and the Sustainable Development and Opportunity Assessment processes. The processes allow for the prioritisation of risks and for the identification of risk management strategies to mitigate the effects of risk on the business. The group is also very conscious of sustainable development issues and seeks to make a positive impact on the social, economic and environmental context in which it operates.
- The Human Resource department, in collaboration with management, is committed to combatting unfair discrimination and to promoting opportunities for workers from disadvantaged backgrounds.

Business Principles

The core values that underpin the business:

As an employer Scaw Metals sets out to attract, develop and retain the best people. All employees and contractors must perform their duties to the highest standards of integrity and ethics. The group will not tolerate unfair discrimination and will promote workplace equality. There is no tolerance for injuries to employees and contractors.

As an investment the business regards providing superior returns to shareholders and honouring its social and environmental responsibilities as complementary and mutually reinforcing.

As a good corporate citizen Scaw Metals seeks to contribute to the well-being of the communities in which it operates and is committed to the principle of sustainable development. It will comply with all applicable laws and will not engage in any forms of corrupt or anti-competitive practices.

In the world of commerce the group seeks mutual benefit in its relationships with customers, partners, contractors and suppliers. It aims to be the supplier and partner of choice.

External Audit

All sites are subject to external audit and independent assurance at least annually in a number of areas including finance, quality, safety, health and environment.

Safety, Health and Environment

In the African operations, all sites undergo a NOSA integrated SHE audit on the platinum system. Of the eleven operating sites, four have 5 stars.

Offshore operations use the OHSAS 18001 management system for health and safety. Currently four out of seven sites are certified.

All sites utilise the ISO 14001 management system for the environment. All major sites are certified and the smaller sites are due for certification by mid 2005.

economic performance

Group Value Added Statement — Total Group

	Rm	$m
Turnover	5,629.3	882.7
Less: Paid to suppliers for materials and services	4,215.9	661.0
Value Added	1,413.4	221.7
Income from other sources	18.4	2.9
Total Value Added	1,431.8	224.6
Value Distribution:		
To employees for wages and related costs	796.7	124.9
Interest Paid	4.0	0.6
To governments for company taxation	174.5	27.4
To reinvestment to maintain and expand the group	196.1	30.8
To shareholders	260.5	40.9
Total Distributed and Retained	1,431.8	224.6

The group Value Added Statement shows how Value Added by the Scaw Metals Group was allocated among the different stakeholders in the business.

Represented graphically and showing the year to December 2003 as a comparison the distribution of value among the stakeholders was as follows;

Scaw Metals Group Value Added (Rm) 2003

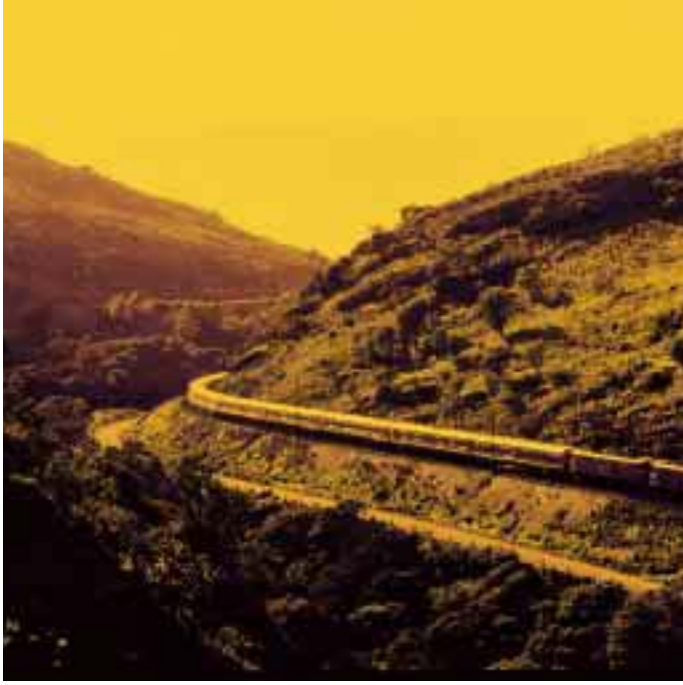
5% Shareholders
9% Government
31% Retained
55% Employees

Scaw Metals Group Value Added (Rm) 2004

18% Shareholders
12% Government
14% Retained
56% Employees

As can be seen from the graphs, the largest portion of Value Added (56 %) was distributed to employees by way of wages and related costs.

Value allocated to shareholders increased on the prior year due to a lower level of capital expenditure in 2004.



Cost Savings

The Scaw Metals Group has an ongoing cost reduction programme in place.

Cost savings are derived from operational efficiencies and through successfully concluding improved terms with suppliers.

During the year to December 2004, a total of R88 million ($ 14 million) was saved by the operations.

Part of these savings were generated by the more efficient use of natural resources reflecting the group's real commitment to its sustainable development objectives.

Geographical Analysis of Activity

Scaw Metals is active on every continent and in many countries around the world, either through its global manufacturing and distribution operations or as a supplier to its export customers.

54% of Scaw Metals' product is sold within South Africa and 46% outside South Africa.

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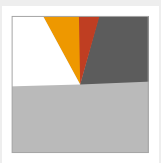
Sales outside South Africa are broken down as follows:



life cycle of steel

The cycle of steel from the collection of scrap through various production processes.

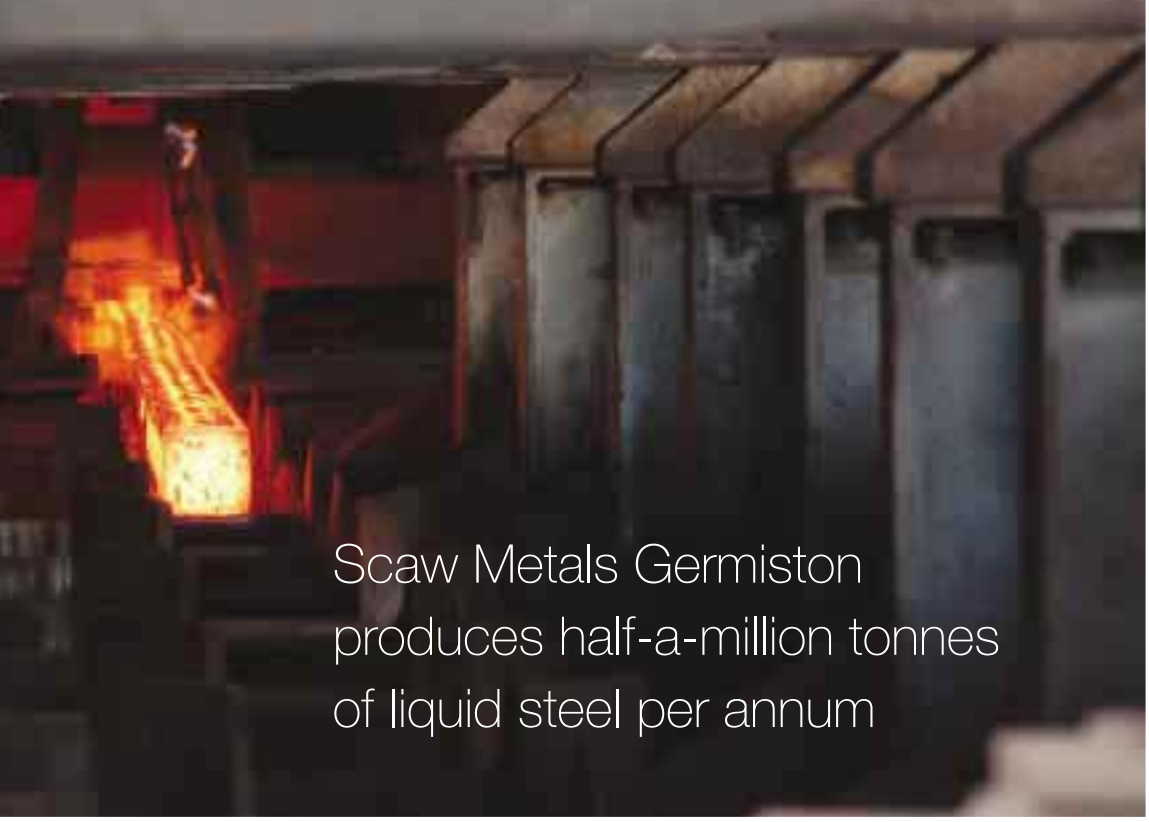
The steel manufacturing industry is truly sustainable. Steel is 100% recyclable and is indeed the most recycled material on the globe. Every new steel product contains recycled steel and in some countries the recycle rate is as high as 85%. (The measure of our sustainability, Report of World Steel Industry 2004. International Iron and Steel Institute.)

Scaw Metals Germiston produces half-a-million tonnes of liquid steel each year from steel scrap and directly reduced iron from its rotary kilns. The scrap steel in all forms is processed by a large shredder, shear and bailer to ensure it is the optimum size to be used in the various furnaces.

Processed scrap is melted in electric arc furnaces to produce billets, castings and steel grinding media. Billet is rolled in the rolling mills to produce rod, rebar, angles and channels. Rod is then processed further in other group factories into sophisticated end products. At the Steel Wire Rope factory it is manufactured into wire rope for surface mining, deep level mining, elevators, off shore oil rigs and electrical reticulation. It is the only company on the globe that makes steel wire rope long enough and strong enough to reach the depths of the world's deepest mine shafts situated in Western Areas, South Africa. At Wire and Strand, rod is drawn down to produce pre-stressed concrete wire and strand, mining commodity rope and high-carbon wire. It is cable from this factory that holds together the Nelson Mandela Bridge in Braamfontein, Johannesburg. At the Chain Products' factory, rod is fabricated into a range of carbon and alloy steel chain and fittings for mining, forestry, agriculture, fishing, offshore oil exploration and other industrial applications.

Scaw Metals has one of the largest foundries in the southern hemisphere and produces a variety of castings of up to 30 tonnes finished weight for many different industrial, transport and mining applications. It is also one of the few foundries in the world that can produce the type of locomotive frames that US giant General Electric (GE) Rail uses.

Scaw Germiston has produced more than 2000 frames for GE Rail and has secured an extension of the contract which means it will ship more than 550 frames during 2005. In addition, the foundry supplies most of Africa's cast steel wheel requirements.



Scaw Metals Germiston produces half-a-million tonnes of liquid steel per annum

Manufactured end products

Sustainability

"zero tolerance" approach

safety

Summary of Group Safety Targets and Performance

Targets Set for 2004	Performance Achieved in 2004	Targets Set for 2005
Zero fatalities Less than LTIFR of 0,40 Less than TRCFR of 2,5 Less than Severity Index 30	Zero fatalities LTIFR of 0,36 TRCFR of 1,3 Severity Index 44	Maintain zero fatalities Less than LTIFR 0,30 Less than TRCFR of 1,3 Less than Severity Index 30

All figures include employees and contractors and the LTIFR includes restricted work cases.

Milestones and Achievements

There has been a significant number of safety achievements this past year which is the result of an intensive focus on safety and the implementation of the Behaviour Based Safety (BBS) process.

The following operations completed the year without any Lost Time Injuries (LTI's):

Scaw Metals Germiston	Scrap Processing division – No LTI for 3 years. Direct reduced iron plant. Wheel plant.
Flather Bright Chain Products CWI Zimbabwe	
Moly-Cop	Peru, Lima and Arequipa sites. Mexico. Philippines – no LTI for 2 years.

A total of 11 out of 26 operations were LTI-free for 2004, compared to the previous year when only four were LTI-free.

The following operations also achieved 1 million or more manhours worked without a LTI during the year.

Scaw Metals Germiston as well as the
- Fettling department
- Foundry
- Scrap Processing
- Wheel plant

Steel Wire Rope
Chain Products
CWI – 2 million manhours
Fibre Products

The Scaw Metals Germiston site achieved NOSA 5 stars on the integrated SHE platinum system. This is the first major steel company to achieve this in South Africa.

Review of 2004

There has been a targeted drive to improve safety throughout the group. In order to achieve the group objectives, the safety programme has been based on three pillars:

- Scaw Metals Group Golden Rules

The group has 10 Golden Rules which cover a variety of activities and if applied correctly will prevent most of the serious or life threatening incidents. These rules must be strictly enforced and management is based on "zero tolerance", an approach that requires an absolute adherence to standards at all times and an intolerance to "at risk" behaviour and unsafe conditions.

The operations are fully accountable for communicating, training and implementing safety procedures based on these Golden Rules.

“zero tolerance”,
an approach that requires an
absolute adherence to standards
at all times

- Visible Felt Leadership (VFL)

Managers visit different areas of their plants for at least one hour every week. The objectives of these visits are to observe the behaviour of employees and to talk to employees where "at risk" behaviours are noted. The employee is coached in the correct behaviour and a commitment obtained from the employee to work safely in the future. Where safe behaviour is noted, this is reinforced and the employee congratulated on working safely. At the same time, the manager discusses any safety concerns the employee may have. Following these visits, safety observation cards are completed.

- Behaviour Based Safety (BBS)

This is a process in which employees are empowered to identify their own critical behaviours, to make pacts with fellow employees to assist them in carrying out their own safe behaviour and to look after team members. Trained employees from the workforce are also used to observe other workers' behaviour and these observations are analysed. When adverse trends become apparent, they can be acted upon immediately. The BBS process also allows for communication channels to be improved.

The initial phase focused on training. All employees, including senior management, have been exposed to training on Behaviour Based Safety principles, some in the classrooms, others at work. Specialised training was also given to the process champion, the behaviour intervention assessors (BIA's) and the coaches, who are now all in the process of being accredited. The function of the coaches is to observe employees at work and to note safe and "at risk" behaviour. Where the latter is observed, the employee is coached in safe behaviour.

The next phase was a site assessment in which 15% of the workforce was interviewed about its perception of safety. Although there were many negative perceptions from the survey, these were accepted in full and the surveys communicated to the workforce. From this survey an alignment strategy was put into place that addressed the immediate concerns, many of which centred around poor communication. Another major concern of the workforce was alcohol use and abuse on various sites and, as a result, a new alcohol policy was put into place, which will be fully implemented during the first quarter of 2005.

Thereafter, IMBOPS were conducted by all employees at all levels. IMBOPS stand for **I**dentification of critical behaviours, **M**ake a pact, **B**ehaviour modelling, **O**bservation and feedback and **P**roblem solving. At the IMBOPS, the groups identified their critical behaviours in terms of the risks and made a pact to ensure that they worked safely and looked after each other. These pacts are reinforced on a regular basis.

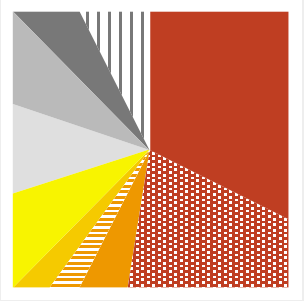
Thus the VFL is a top-down approach whilst the BBS is a bottom-up approach. These approaches complement each other and, when used together with the Golden Rules, form the basis of the safety programme.

- Contractors

In the South African operations, all induction training of contractors is performed by an external agency, KB Consulting.

On completion of induction training, contractors receive an access card that is valid for one year. This has had the advantage of allowing own training departments to focus their efforts on their own employees. In addition, contractors no longer require repeat induction training when working at different group sites.

Causes of Lost Time Injuries
2004



Moving Machinery	33%
Materials Handling	20%
Slips & Falls	5%
Injury from hand tools	3%
Electricity	3%
Transportation	7%
Falling Objects	10%
Falling from height	7%
Fire/Explosion/Hot Metal	5%
Other Causes	7%

The Scaw Germiston Sub Steering Committee making its pact as part of the Behaviour Based Safety process.

Performance

There has been a major improvement in safety performance. There were no fatalities and the LTIFR was halved from 0,76 to 0,36. Of greater significance was the reduction in the Total Recordable Case Frequency Rate (TRCFR) from 3,93 in 2003 to 1,3 in 2004.

An analysis over the last three years has shown that working on moving machinery and material handling incidents caused approximately 50% of all LTI's. Significant effort has gone into the training of crane drivers and slingers. Another trend is that artisans, as a group, had a high number of injuries, which is to be expected due to the varying nature of their work. To combat this, artisans at several sites were put through a risk assessment course so that they learnt to look at the risks and plan the job instead of rushing into it. As a result of this training, incidents showed a marked reduction.

Following a serious incident on a wire drawing machine, a review of safety of the wire drawing process was made by the Group Engineering department, factory engineers and production managers from several factories. There are many wire drawing machines at different sites and a new standard for safety was introduced. (See Case Study 2).

Objectives 2005

The safety objectives for 2005 are a 25 – 30% improvement on the actual indices reported on for 2004. The ultimate objective over the next two years is zero lost time injuries. There is no doubt this can be achieved provided both management and the employees continue to "buy in" and carry out the VFL and BBS process with dedication.

The culture of safety that has developed needs to be taken to a higher level and this is certainly achievable.

"the ultimate objective over the next two years is zero lost time injuries"

Group Safety Performance Against Targets - Historical

	FIFR		LTIFR		TRCFR		Severity Index	
	Actual	Target	Actual	Target	Actual	Target	Actual	Target
2002	0,00	0	0,76	0,60 *	4,43	2,50	37	45
2003	0,01	0	0,75	0,40	3,93	2,50	27	40
2004	0,00	0	0,36	0,40	1,28	2,50	44	30

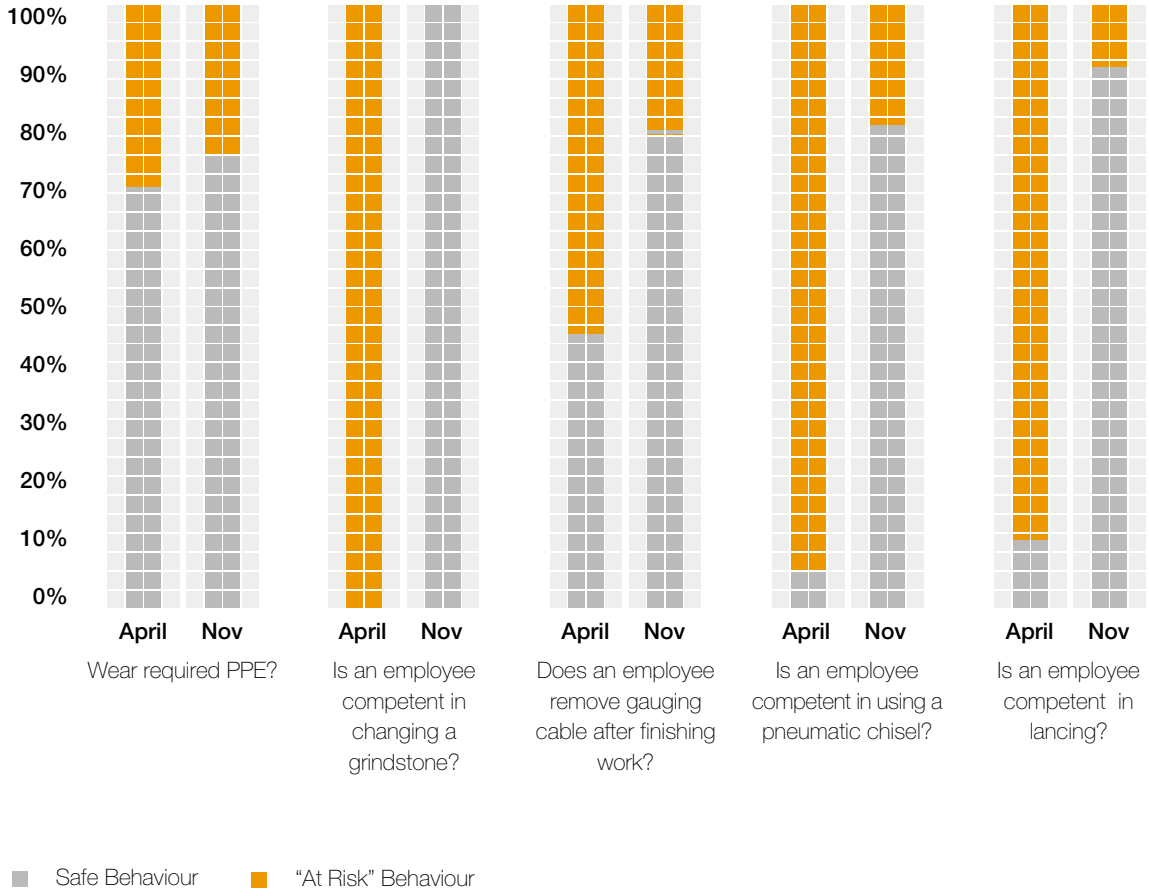
*Target excluded restricted work cases.

Since the implementation of the BBS process at these sites, we have seen a significant reduction in “at risk” behaviour

Safety Case Study 1

The Behaviour Based Safety (BBS) process implemented in the Scaw Metals Group has won the support of employees. Together with ongoing Visible Felt Leadership, the implementation of focused safety training and a drive towards better communication, BBS has made a significant improvement to the group’s safety records.

The graph below shows one department in many where reductions are shown in “at risk” behaviours between April and November 2004. This type of information assists departments in focusing their efforts.



Hardness testing of coal pulverising ball.

The second low relaxation pre-stressed wire line at the Wire and Strand factory.

New safety measures have been put in place on wire drawing equipment.

Safety Case Study 2

Safety Upgrade of Wire Drawing Equipment

There have been a number of injuries over the years to employees working on older wire drawing machines where machine guarding and other safety aspects were not up to the standard of new generation wire drawing equipment.

As there are several older machines in the group used at six different factories, it was decided to get together senior production personnel and engineers from the different plants in order to develop a new safety standard for this older equipment. Visits were made to sites and joint solutions were proposed, resulting in a new standard.

New Standard

- Direct overhead lighting to be installed, to ensure good visibility at each block.
- Only inching pedal foot controls at each block to be allowed.
- Machine run controls to be installed on only the main control panel.
- Overhead machine pivot guards must be laser interlocked. These are superior to micro switches.
- Guards must be painted black instead of yellow – the visibility through them is better.
- The lower part of the pivot guard must be angled in towards the machine to prevent access to moving parts under the guard.
- An additional guard must be installed at right angles to the last pivot guard.
- A chain complete with “no entry” sign to be installed at the rear of the machine to prevent access from the rear.
- Interlocked sliding gates to be installed between final block and main electrical control panel. (Optional).
- Provision of external soap agitation and monitoring of cooling water circulation. (Optional).

As a result of this new standard, a pilot wire drawing machine (DC41) at the Steel Wire Rope factory was modified to the new standard. The changes have been successful and have been well accepted by the operators. There will now be systematic programmes put into place to upgrade all older wire drawing equipment.

Behaviour intervention assessors meet once a week at Scaw Metals Germiston.

Carlton Molope (left) says: "Safety concerns all workers".
Pramod says: "In everything you do, safety must be number one".
They are accompanied by Mike Baker, group safety, health and environmental manager.

Safety Case Study 3

The safety logo launched by Scaw Metals Group in 2004 places the focus on employees: Safety is number one because you are number one. Employee safety is a priority - without each employee upholding the rules of safety, the Scaw Metals Group cannot have a safe working environment. This is why the letters S C A W have been used to spell out Safety Concerns All Workers.

The safety logo was introduced in July via posters that were distributed to all operations in the group. The logo is being added to safety literature, posters, boards, etc, used in the operations.

The logo was inspired by the contributions to the Safety Logo Competition by Carlton Molope from the Benoni Works and Pramod Govind from Information Technology. They were both awarded cash prizes for their contributions.

occupational health

Summary of Group Occupational Health Targets and Performance

Targets Set for 2004	Performance Achieved in 2004	Objectives set for 2005
Health risk assessments to be updated and risk profile developed.	Health risk assessments updated and will be regularly updated in future.	Set targets for medical surveillance of employees to ensure that all employees are examined at the correct intervals.
Occupational hygiene monitoring at each site completed as per site procedure for hazards and frequency.	Occupational hygiene monitoring completed at each site.	All remaining cases of occupational diseases to be identified and submitted for compensation.
Provide moulded hearing protection devices for employees in areas where decibel levels exceed 100 or where high risk tasks are identified.	Target not achieved. 30% of employees in designated areas received moulded hearing protection devices due to supply constraints	Ensure all noise zones re-identified as per country standard, demarcated and suitable hearing protection devices issued.
		Ensure health risk assessments carried out on all hazardous chemicals, material safety data sheets obtained and medical surveillance carried out where appropriate.

Milestones and Achievements

Although the occupational health aspects are not as visible as the safety aspects, there have been a number of achievements this year.

New management systems have been developed and are still being improved for the medical surveillance programmes at the major sites. These programmes are aimed specifically at the hazards to which the employees are exposed and will pick up early abnormal trends in employees. As a result of these new systems, a number of occupational diseases have been detected.

Centralised reporting has also improved considerably and meaningful data is now being received.

Dr Jenny Sapire was voted by NOSA as the Regional Occupational Health Practitioner of the Year.

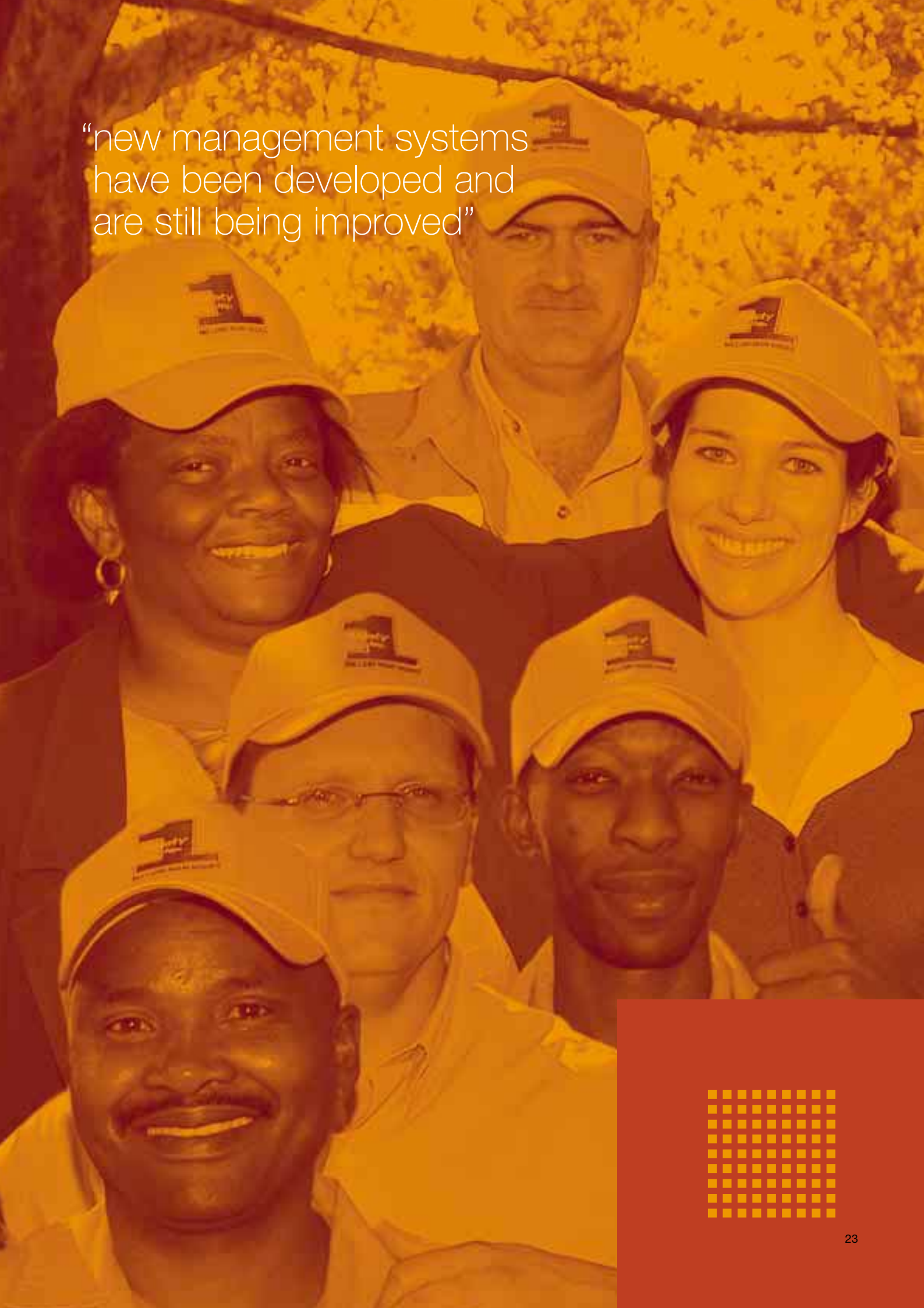
Dr Jenny Sapire.

Review of 2004

Occupational illness or diseases generally take many years to develop and are often the accumulation of repeated low level exposure to hazards. An example of this is silicosis and even with repeated exposure to low levels of silica, it is unusual for silicosis to develop within the first eight to ten years of exposure.

As a result, detailed health risk assessments are important and need to be updated regularly. These assessments are dependent on input from occupational hygiene measurements, information from material safety data sheets, knowledge of the processes and the employee tasks, as well as any occupational illness caused by previous exposure.

From these assessments, control measures need to be implemented which may include modification to machinery and/or process, substitution of hazardous chemicals, the use of personal protective equipment, and education and training.


“new management systems
have been developed and
are still being improved”

Medical surveillance or periodic medical examinations of employees is an important part of managing risk. The frequency and type of examination are determined by the medical practitioner at each site. Monitoring also includes ongoing measurement of the local environment in which the employee works by means of occupational hygiene measurements.

Although there are several health risks in the group, the most significant are excessive noise, which can lead to noise induced hearing loss, and silica dust, giving rise to silicosis.

Performance

There were a number of occupational diseases submitted to the compensation agencies during the year; 81 cases of noise induced hearing loss, 4 cases of silicosis and one case of occupational dermatitis. Most cases of noise induced hearing can be attributed to new South African legislation introduced at the end of 2003, which changed the way hearing loss is calculated for compensation purposes. The cases of silicosis were the result of past practices and were not due to recent exposure.

There were also three cases of occupational tuberculosis submitted to the compensation commissioner. These are employees who developed tuberculosis whilst exposed to silica dust. In all these cases, the level of silica dust to which they were exposed was substantially less than the South African legislated occupational exposure level of 0,4 mg/m³. The cases all recovered without disability. It should be noted that there is a high community level of tuberculosis in South Africa which is further aggravated by HIV infection, and that nearly half of all tuberculosis cases are infected with the HIV virus.

Occupational Disease 2003 vs 2004	New Suspected Cases Submitted		Number of Cases Certified	
	2003	2004	2003	2004
Noise Induced Hearing Loss	4	81	0	7
Silicosis	0	4	2	4
Chronic Obstructive Airways Disease	0	0	0	0
Occupational Tuberculosis	0	3	0	0
Occupational Asthma	0	0	0	0
Contact Dermatitis	0	1	0	0

Note: Occupational diseases may only be processed by the Compensation Commissioner in South Africa months or years after submission.

Objectives 2005

Targets will be formally set for medical surveillance of employees. These figures do not always relate to the number of employees exposed to certain hazards as the periodicity of surveillance may vary from three months as with lead exposure to two years for silica dust exposure.

All existing cases of occupational disease are to be diagnosed and submitted to the authorities by the end of 2005. Following this, any new cases will be a failure of new preventative management systems put into place.

A major focus will be on the whole aspect of noise re-identification and demarcated noise zones, to ensure that suitable hearing protective devices (HPD's) are issued and to ensure that employees wear their hearing protection at all times.

Finally, a refocus on hazardous chemicals will be performed, to ensure that material safety data sheets (MSDS) are obtained, risks reduced and medical surveillance carried out where necessary.

"Targets will be formally set for medical surveillance of employees"

Health Case Study

Reduction of Noise at Source

At the breaker drum in the high chromium ball plant, noise levels were very high at 108 to 110 decibels next to the drum. The objective of this drum, which rotates, is to break joined castings into individual balls.

As a result, a brick structure was built around the drum with a removable roof for maintenance purposes. This has reduced the noise levels by 8 – 10 decibels, which is significant as the decibel scale is logarithmic and a three decibel increase results in a doubling of the sound pressure. It can be improved further by reducing the apertures where the conveyor belts access and exit the enclosure.

A brick structure and removable roof now enclose the breaker drum in the high chrome ball plant, thereby reducing noise levels.

Dr Jenny Sapire from Life Occupational Healthcare, formely Afrox Occupational Health Care, (left) was voted Regional Occupational Medical Practitioner of the Year 2004 by NOSA. With her is Sandra McCallum, operations manager, Life Occupational Healthcare (LOC).

LOC is contracted to provide health care services to Scaw Metals' factories in South Africa.

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Summary of Objectives and Targets

Targets Set for 2004	Performance Achieved in 2004	Targets set for 2005
Water consumption.	Water consumption per tonne of product increased by 6.9%.	Target a 0,5% reduction in water consumption per tonne of product.
Total energy consumption.	Total energy consumption per tonne of product produced decreased by 4.1%.	Target a 1,0% reduction in total energy consumption per tonne of product.
Greenhouse gas emissions (CO_2).	Total CO_2 emissions reduced by 4,0%.	Target 1,0% reduction in total CO_2 emissions.
Waste management.	Progressively reduce waste to landfill. Achieved a 10% reduction in waste to landfill. General waste recycling taking place at the major sites.	30% reduction in process waste to landfill. Further improve general waste recycling.
Certification and Audits: ISO 14001.	Achieved at all major sites.	Remaining three smaller operations to achieve certification by mid 2005.

The Scaw Metals Group is committed to the principles underpinning sustainable development by operating with due regard for environmental concerns and by adopting the duty of care approach. This is facilitated by commitment from top management and individual employees who strive to conduct business in line with the SHE Policy.

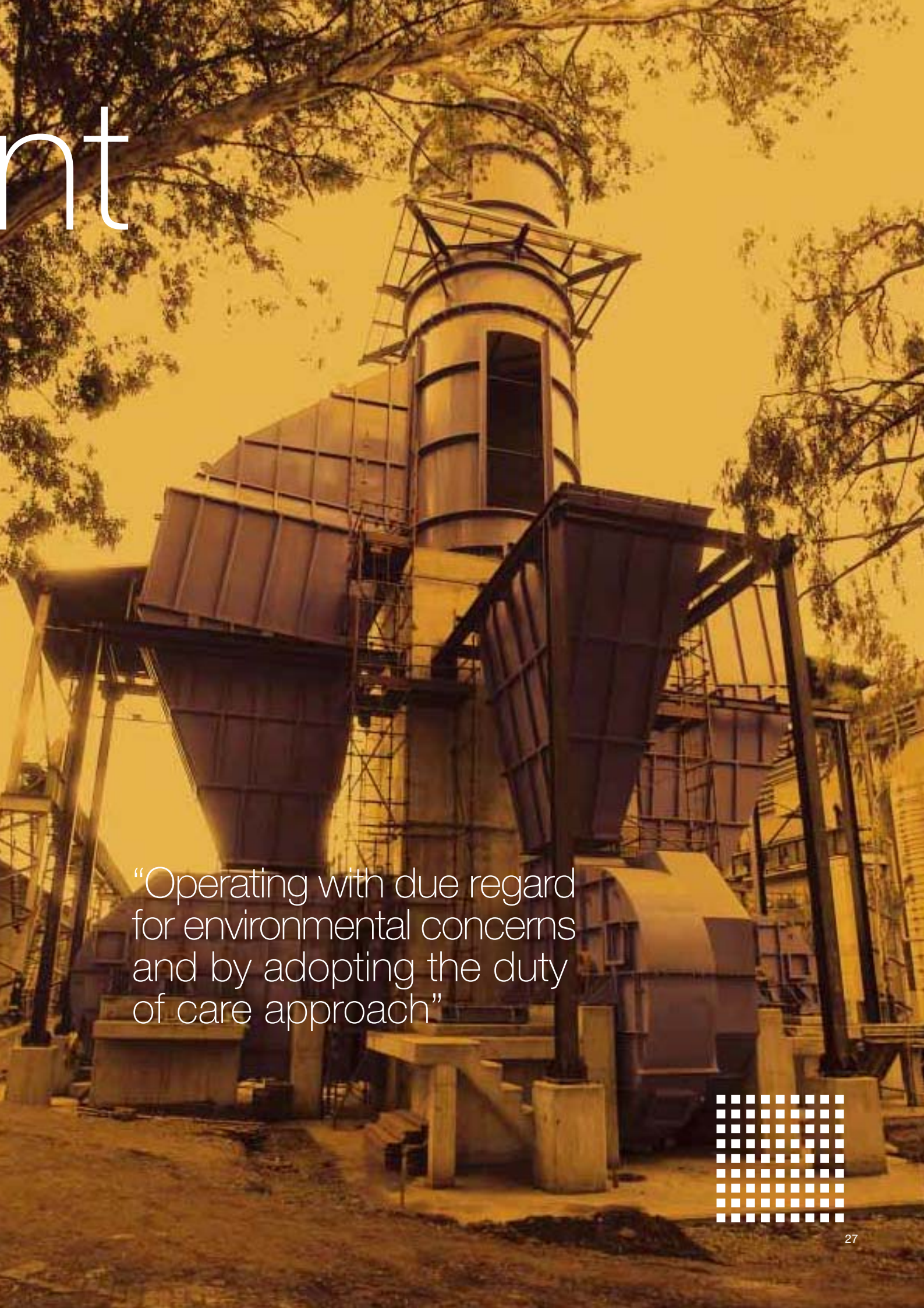
Approach to Environmental Management

The group has progressed from the "end of pipe" approach to the "in-process" approach. Emissions to air, land and water from the steel production process are, therefore, substantially reduced and managed. Scaw recognises its responsibility to conduct business in a responsible manner, and is committed to contributing to the objectives of sustainable development. Environmental excellence is attained by implementing the following principles:

Environmental Protection

"Endeavour to effectively manage all potential environmental impacts arising from activities by supporting research and innovation, and by implementing effective abatement measures and cleaner technologies which will result in continued improvement".

The upgraded fume extraction system at the main melt shop is an example of the group's drive towards continued improvement.


nt
"Operating with due regard
for environmental concerns
and by adopting the duty
of care approach"

Environmental Risk Management

"Preventing environmental degradation by incorporating environmental risk assessments as a decision making tool".

This includes the implementation of contingency measures to prevent emission to the environment through emergency response planning, responsible life cycle management of activities, environmental impact assessment planning for new activities and communication with the relevant authorities. It further implies that regulated activities are monitored and managed effectively.

Sustainable Development

"Implementation of the fundamental principles of efficient resource management and conservation, waste reduction, re-use and recycling, effective energy management and applying the principle of sustainable development in the manufacturing of steel".

According to the Brundtland Commission Report (1987), sustainable development is defined as "development that meets the needs of the present, without compromising the ability of future generations to meet their own needs". The World Business Council for Sustainable Development has defined sustainable development as: "Ensuring a better quality of life for everyone, for now and for generations to come." In line with this approach, focus areas include scrap metal recycling, process waste re-use and recycling, as well as resource consumption management by means of effective resource consumption monitoring, reporting and benchmarking.

Environmental Management System

"To incorporate proactive and progressive environmental management by monitoring and auditing activities in terms of the SHE policy, relevant legislation, objectives and targets, as well as management and operational procedures on a bi-annual basis, both internally as well as externally".

The Environmental Management System of choice is based on the ISO 14001 standard. The elements of this internationally accepted standard include a policy, environmental impact assessment planning for new processes, implementation, monitoring and auditing of environmental management plans and emergency response planning. All the major sites have been certified.

Training and Communication

"Develop and promote an environmental understanding by means of training and information dissemination to directors, management, employees, contractors, customers, government and the community."

This is achieved by fostering open and constructive dialogue with employees, regulatory authorities and stakeholders. Environmental awareness training is regarded as a priority. During the past year additional effort has been put into the development of new and relevant environmental training material.

Environmental Quality Assurance

"Recognise, implement and integrate environmental quality assurance as an integral component of conducting business."

This is achieved by integrating environmental policies, objectives, programmes and best practices in activities to achieve sound environmental management.

Resource conservation is a key focus area. In 2004, progress was made, with the focus areas resource (water and energy), waste and emissions to air management.

Review of 2004 Environmental Performance

Emissions to Air

The National Environmental Management: Air Quality Act, 2004 (Act 39 of 2004) has replaced the outdated Air Pollution Prevention Act, 1965 (Act 45 of 1965) with a more effective regulatory regime.

This includes the establishment of national norms and standards, an air quality management and planning framework, a reporting regime and numerous regulatory instruments for the control of air pollution by means of enforcement and compliance monitoring.

Particulate Emissions

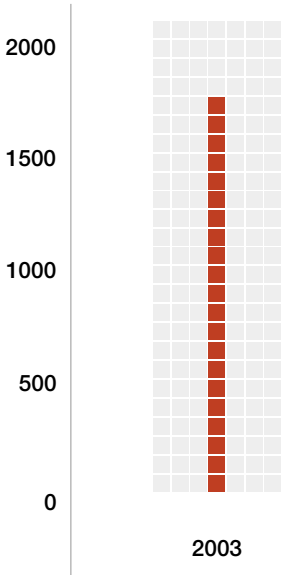
The main melt shop fume extraction system upgrade is a proactive initiative which will ensure conformance to the updated environmental legislation (Refer to Case Study 1).

Greenhouse Gas Emissions

In 1997 the parties to the United Nations Framework Convention agreed, amongst other things, on the reduction of so-called greenhouse gases, which are believed to have a negative impact on the earth's climate. Carbon dioxide has been singled out as the primary gas of concern. The agreement was signed in Japan, and is known as the Kyoto Protocol. Reports from the Inter-governmental Panel on Climate Change (IPCC) have verified that global temperatures will increase by approximately 5.8°C by 2100. The effects could be devastating.

The Scaw group recognises the importance of climate change and is committed to the reduction of greenhouse gases. The group has, therefore, established a database and installed a monthly reporting system on greenhouse gas emissions. Total CO_2 emissions have decreased by 4,0%.

Carbon Dioxide (CO_2) Emissions

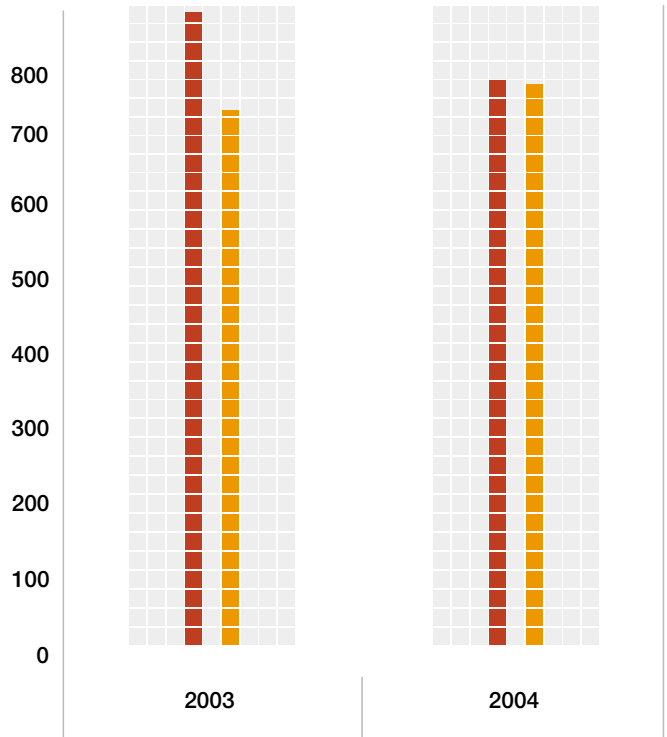


	2003	2004
Total CO_2 emissions (1000 tonnes)	1613	1548

"develop and promote an environmental understanding by means of training and information dissemination to directors, management, employees, contractors, customers, government and the community"

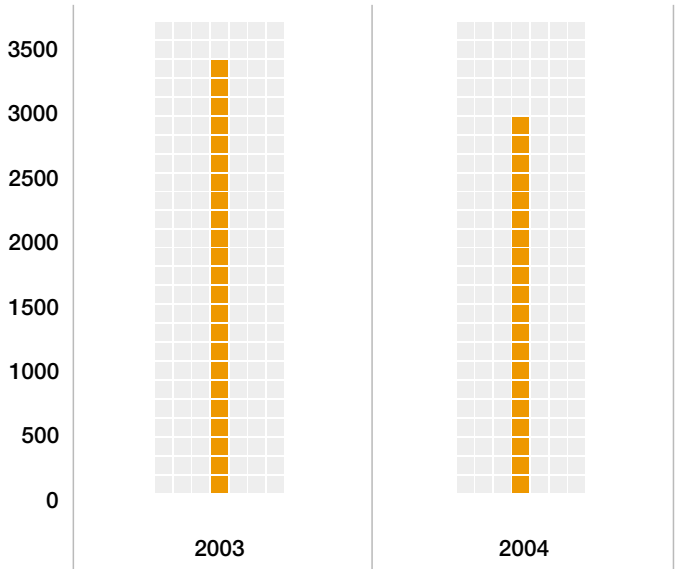
"recycling is encouraged"

Carbon Dioxide ($C0_2$) Emissions by Energy Source



	2003	2004
Fossil Fuel emissions (1000 tonnes)	886	775
Electricity emissions (1000 tonnes)	727	773

Sulphur Dioxide ($S0_2$) Emissions



	2003	2004
Total SO_2 emissions (tonnes)	3368	3007

Water Management

Surface and groundwater quality monitoring is ongoing. In addition, focused monitoring is taking place in the vicinity of waste disposal sites to ensure that the waste site management is effective. Water quality monitoring results are submitted to the relevant authorities.

Water consumption management is regarded as a top priority. Daily water readings are taken and compared with stringent consumption targets.

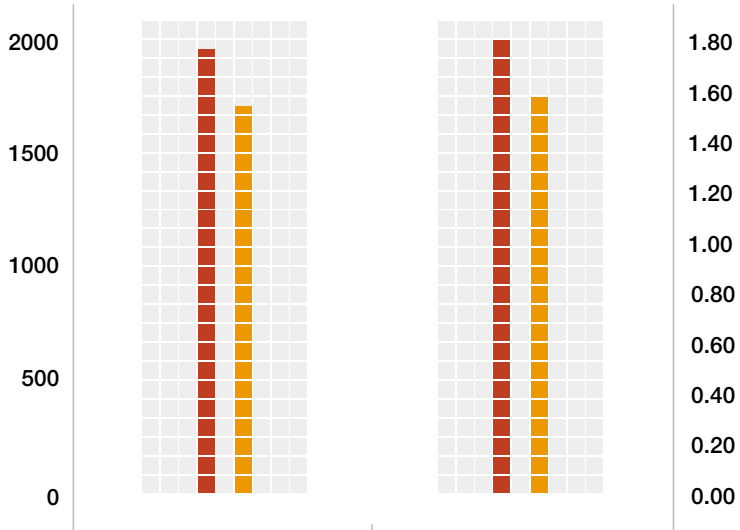
Water reuse and recycling is encouraged. 2004 was again a dry year, and this affected the water consumption figure. To ensure that targets are met in future, additional efforts to optimise reuse and recycling have been undertaken. In addition, the surface water management system at Scaw Germiston has been upgraded to facilitate the reuse of water. Leaks have been targeted to ensure that wastage of water is controlled.

Water Management

Indicator	2003	2004
Surface water quality monitoring	Yes	Yes
Groundwater quality monitoring	Yes	Yes
Water use monitoring	Yes	Yes
Surface water and / or groundwater quality deterioration off-site	No	No

"water consumption management is regarded as a top priority"

Water Consumption



	2003	2004
Water used for primary activities (1000 m³)	1987	2024
Water used per tonne of product (m³/tonne)	1.44	1.54

Land Stewardship and Biodiversity

Indicator	2003
Land under company charge (ha) Land occupied for industrial / office activities	483 156
Land fully rehabilitated (ha)	16

Rehabilitation Activities

Scaw Metals Germiston intends to rehabilitate and remediate the Rietfontein Area B Landfill located in Springs, Gauteng, South Africa. The principle aim of the project is the sustainable containment of leachate, and the secondary aim is to develop a socially and economically sustainable system that can be integrated into local land-use planning. This will be achieved through phyto-engineering (phytoremediation coupled with engineering solutions). The objective of the vegetation plan is to rehabilitate the site using indigenous vegetation (Refer to Case Study 5).

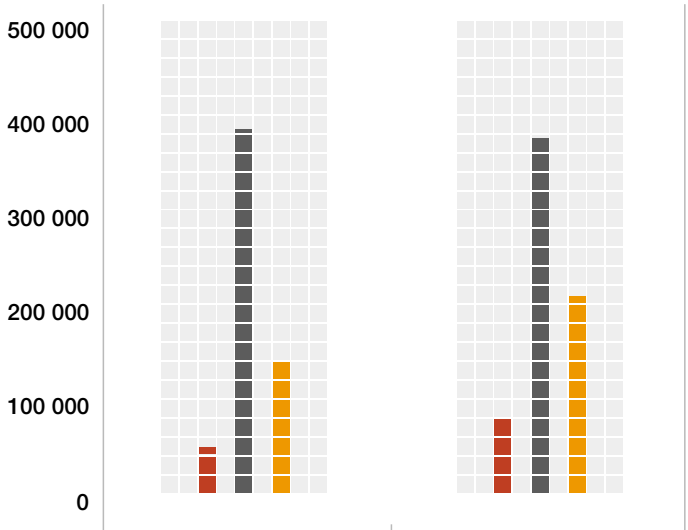
Waste Management

Probably the greatest challenges facing production industries today are waste minimisation, the conversion of waste to a usable resource and the safe disposal of waste. In South Africa, the requirement for a healthy environment is entrenched in the Constitution and in stringent environmental legislation.

The Scaw group is committed to the reduced generation and environmental impact of all forms of waste. Environmental resources are conserved by controlled and coordinated waste management.

In line with the integrated pollution and waste management approach, a waste recycling station was launched at the Germiston site in July 2004 (Refer to Case Study 4).

Waste Recycling



	2003	2004
Paper (kg)	45144	66685
Scrap steel (tonnes)	404 308	391 564
Plastic (kg)	121121	208932

Clockwise: The Harris bailer, shredder and shear at Scaw Metals Germiston.

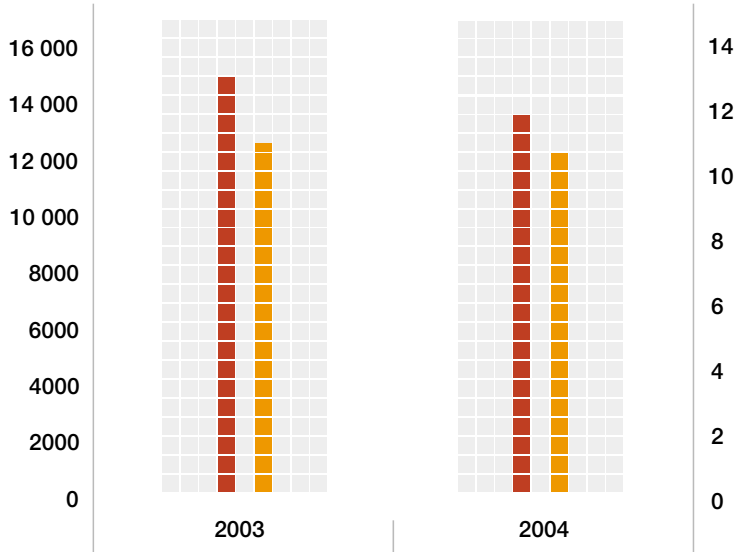
Resource Management

The Scaw group strives to be an "eco-efficient" business, in line with the phrase coined by the World Business Council for Sustainable Development. It aims to deliver economically priced steel products that satisfy human needs and bring quality to life, whilst progressively reducing ecological impacts and resource intensity throughout the life cycle of steel.

Energy Management

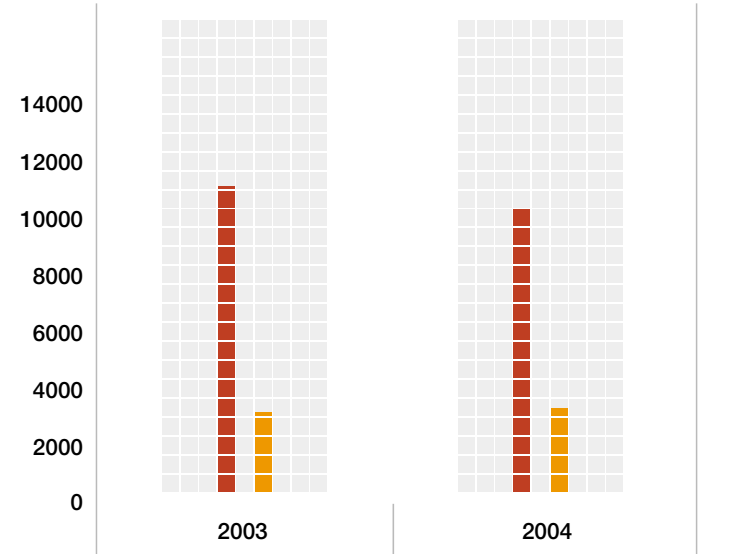
It is estimated that world energy consumption will double by 2050. The challenge will be to reconcile the increasing energy need with the increased impact on the environment. As a result of the programmes focused on energy efficiency, Scaw Germiston was awarded the Eskom ***eta*** Award (Refer to Case Study 6).

Energy Consumption



	2003	2004
Total Energy Consumption (1000 GJ)	15019	13728
Energy Consumption per tonne of product (GJ/tonne)	10.86	10.43

Energy Consumption by Source



	2003	2004
Fossil fuels (1000 GJ)	11774	10271
Electricity (1000 GJ)	3245	3457

Stakeholder Involvement

Stakeholders are defined as those persons or organisations which have direct or indirect contact with the group in a social context. The aim is to consider and harmonise the various interests and requirements of stakeholders. Constructive dialogue is ensured by convening an annual forum which serves as a platform to discuss environmental projects and environmental performance. In addition, personal visits are paid to stakeholders to ensure that all queries are addressed in a satisfactory manner.

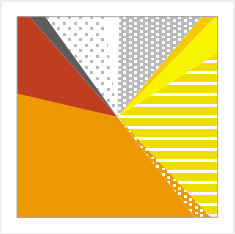
Continual Improvement

Audits

Regular internal and external environmental audits are undertaken to ensure conformance to the SHE policy, procedures and legal requirements, and to ensure continuous improvement.

Non-conformance Analysis

Non-conformance analysis is an effective management tool used to prioritise the areas of concern.



- 1% Land
- 1% Noise
- 1% Training
- 2% Resources
- 3% Water
- 8% Waste
- 10% Legal
- 11% Emissions
- 23% Water and Soil
- 40% EMS Documentation

The Objectives for 2005 include:

- Overall reduction in water consumption (0.5%) per tonne of product produced, linked with water re-use initiatives.
- Overall reduction in total energy consumption (1.0%) per tonne of product produced, linked with energy efficiency initiatives.
- Overall reduction in greenhouse gas emissions linked with the total energy consumption targets.
- Appointment of energy co-ordinators at all operations to liaise with the Group Energy and Resources Committee.
- ISO 14001 to be implemented at the remaining smaller operations.
- Continued waste recycling and minimisation, with the target being a 30% reduction in process waste to landfill.

"Implementation of the fundamental principles of efficient resource management and conservation, waste reduction, re-use and recycling, and effective energy management"

Environmental Case Study 1

Main Melt Shop Fume Extraction System Upgrade

In line with the global drive towards effective emission management, Scaw Germiston has invested in the upgrade of the fume extraction system at its main melt shop.

The original electrical arc furnace was installed in 1975. The melt shop went through several upgrades which included changes made to the off gas system. Production from the melt shop increased from 150 000 tonnes per annum (t/a) to the present day 500 000 t/a. It is envisaged that future production would increase to 600 000 t/a.

Bender Corporation, a subsidiary of Badische Stahl Technology, was commissioned during 2002 to do a dynamic fluid model of the present and anticipated future production rate increases in the melt shop. This culminated in a recommendation and a basic design to bring the melt shop fume extraction system up to world standards.

An order was placed on VOEST-ALPINE Impianti, an Italian based firm and world leader supplying fume extraction systems in the iron and steel industry.

New equipment includes the following:

- Increased water-cooled duct sizes to reduce gas velocities.
- Increased fan capacity to allow for higher extraction volumes from both canopy and direct extraction.
- Introduction of a spray chamber for rapid cooling of the fumes.
- New increased size baghouse to allow for increase in fume volumes.
- Upgraded cooling system to handle the increase in heat capacity.
- Pulse Jet Filter Baghouse.
- Extraction capacity increase from 520 000 m³/hr to 1 300 000 m³/hr.

Visually there has been a marked improvement. An external consultant undertook isokinetic testing in October 2004. The results indicated a dust burden of only 5 mg/Nm³. The current certificates of registration issued by the Department of Environmental Affairs and Tourism specify a dust burden not exceeding 100 mg/Nm³.

The upgraded fume extraction system will provide an improved working environment for the melt shop personnel, as well as a system that can cope with increased production rates. The state-of-the-art equipment will also virtually eliminate fugitive emissions. Feedback from employees and neighbouring residents has been positive.

Fume extraction system ducting at the main melt shop.

Environmental Case Study 2

Desalination Plant Installed at the Molycop Mejillones Plant

A desalination plant was installed at the grinding media plant located in Mejillones, a coastal town in the Atacama Desert, in northern Chile. The Atacama Desert is regarded as the driest desert on earth.

Due to the scarcity of potable (drinking) water, the treatment of seawater became a necessary option. The plant uses a technology known as reverse osmosis. Reverse osmosis, also known as hyperfiltration, is the finest filtration known. The desalination plant has a nominal process capacity of 375 m³/day. The plant is yielding 350 m³ of process water and 20 m³ of potable water per day.

Desalination plant at Mejillones.

Environmental Case Study 3

Sand Reclamation Plant at the Scaw Metals Germiston Foundry

A resin bonded sand reclamation plant has been installed at the Germiston foundry. H A Falchem together with GUT (a German Engineering company – specialising in resin sand reclamation plant and equipment) introduced the concept / feasibility of mechanical reclamation of resin bonded sand at efficiencies of 80 to 90% to Scaw Germiston.

The installation of the sand reclamation plant conforms to the group's waste reduction strategy, as it reduces the total volume of waste to landfill by approximately 10% per annum. The plant is designed to reclaim silica and chromite sand, thus significantly reducing resource consumption.

Sand reclamation plant.

Environmental Case Study 4

General Waste Recycling at the Germiston Operations

To ensure sound environmental management of waste and to maximise the utilisation of valuable resources, a general waste recycling project was initiated at the Germiston operations.

Since the inception of the waste recycling station, approximately 30 000 kg of general waste has been recycled. This includes paper, plastic, tin and glass. The aim is to ensure the proper segregation, collection, transport, recycling and disposal of non-recyclable waste through the adoption of the best environmental practice in waste management.

The general waste is separated into colour coded bins at satellite waste stations within the various departments, whilst final sorting and separation takes place at the on-site waste recycling station, which is managed by the Phambili Wasteman Group.

Scaw Germiston's new waste recycling station.

Environmental Case Study 5

Prototype Phytoremediation for Landfills on the Highveld: Rietfontein Area B

The Rietfontein Area B waste landfill commenced in the 1970's with the infilling of a clay quarry. The site was capped and grassed in the 1990's. This attempt at closure was neither effective nor sustainable.

As part of the road to closure, various specialist investigations were undertaken on and around the site. The investigation concluded that the underlying aquifer is not contaminated by the waste landfill. Various closure options were investigated. This included the conventional engineering approach to landfill closure (capping the landfill and pumping leachate to sewer). It was decided that a sustainable approach will be taken, with phytoremediation (containment and removal of polluted leachate with plants) being the preferred option. The phytoremediation project commenced with authority consultation, as well as first phase public participation.

A cost-benefit model and risk assessment components will be incorporated into the Rietfontein Area B Vegetation Plan. These incorporations are considered essential for developing vegetation options that actively remediate the site, and actively mitigate latent and potential liabilities. The vegetation plan will be practical and developed in collaboration with the University of the Witwatersrand. The vegetation plan will comprise a recipe approach and include easily identifiable remediation benchmarks for inspection by regulatory authorities en route to closure. Indicators of water and air quality as well as vegetation sustainability will be provided. The vegetation used will be inoculated and tolerant to landfill conditions.

To illustrate the effectiveness of phytoremediation, a pilot scale woodland trial of approximately 1ha was started in January 2005. The trial will ensure that the phytoremediation techniques used are optimised. The main rehabilitation effort on and around the landfill is scheduled to commence mid 2005. The works are to be completed by the end of December 2006, with maintenance and intensive monitoring to continue for a period as required by the relevant authorities.

The site preparation and vegetation on the landfill site were implemented by a vegetation contractor and community labour, under the support and supervision of the University of the Witwatersrand. Where possible, the implementation of the project takes place in-house.

Vegetation established on the site must:

- Reduce pollutant emissions to water and air.
- Reduce environmental risk in terms of toxicity, surface stability and impact on surrounding land-use.
- Contribute to the evapotranspiration of incoming precipitation (rain).
- Be dominated by woody and semi-woody species.
- Be indigenous to the local bioclimatic region and largely derived from the locality.
- Be self-sustaining (i.e. regenerate via seed and vegetatively without human intervention).
- Be fire tolerant or fire retardant.
- Contribute to the long-term rehabilitation of the site through the development of soil and fostering of ecosystem processes.
- Be unattractive for vandalism.
- Be established cost-effectively.
- Not require irrigation.
- Be acceptable to all interested and affected parties.

The University of the Witwatersrand Woodlands Project is partnered by the Directorate of Participatory Forestry (Department of Water Affairs and Forestry) for the sole purpose of developing community-based organisation nurseries to supply, harvest and market indigenous and tolerant plants to mines and industries. The vegetation for the Rietfontein Area B trial was supplied by the Modula Qhowa Community Nursery in Botshabelo.

It is anticipated that the project will achieve sustainable pollution containment and the economic empowerment of communities.




Environmental Case Study 6

eta Award For Scaw Metals Germiston

Scaw Metals Germiston was the recipient of the prestigious ***eta*** Award, Industrial Category, from Eskom, the South African electrical generation and distribution company, in 2004. This was as a result of the implementation of projects focused on energy efficiency.

eta is the seventh letter of the Greek alphabet and the symbol for efficiency, hence the name of the award, which aims to reward the proven application of sound energy management principles. The award is presented for innovative thinking and practical application of efficient energy use. The Scaw Metals' projects that were submitted to Eskom were:

- The oxy-fuel burners at the 85 tonne electric arc furnace in the main melt shop.
- The construction of the shredder which converts larger scrap, such as motor cars and fridges, into cellphone size pieces of scrap.
- The shear which cuts larger scrap into 50 cm slices.
- The installation of an upgraded fume extraction system which ensures compliance with stringent environmental legislation.

These projects are all inter-related in the melt shop and the overall objectives were to improve energy efficiency, increase production capacity and improve environmental conditions.

"Scaw Metals won a 2004 *eta* Award"

Below: Johan Burger, group operations manager, Scaw Metals Group (right), accepted Scaw Metals' 2004 ***eta*** Award from Eskom on behalf of the group. The certificate and trophy were presented by Lulama Xingwana, Deputy Minister of the National Department of Minerals and Energy, and Reuel Khoza, chairman of Eskom Holdings Limited.

Rietfontein site trial area being planted and an aerial photograph of the site.

"It is easier to change behaviour at a young, impressionable age and hope this is maintained through the individual's life"

HIV

Summary of Group HIV/AIDS Targets and Performance (African Operations)

Targets Set for 2004	Performance Achieved in 2004	Objectives set for 2005
Significant proportion of workforce to undergo Voluntary Counselling and Testing (VCT).	Approximately 40% of the workforce has now been tested.	Increase VCT so that 90% of employees are tested by end 2006.
Ensure wellness programmes are established for all HIV positive employees.	Wellness programmes have been established for all HIV employees.	Extend partnerships with local government and NGO's to assist with HIV in communities associated with Scaw.
Complete roll-out of anti-retroviral therapy (ART).	Roll-out completed at all sites (with the exception of one small site).	

Milestones and Achievements

There has been a significantly improved uptake of voluntary counselling and testing (VCT). On December 1st World Aids Day, and for a few days afterwards, more than 1 000 employees came forward to be tested. Of this group about 7% were HIV positive. It is felt that this improvement is due to a closer working relationship with shop stewards of the various unions prior to World Aids Day, and a greater trust by employees in the medical staff and the company. Employees have also seen the positive effects of anti-retroviral treatment (ART) being introduced in the group, and have seen that colleagues have been helped to deal with their illness.

The apprentice group was identified as a key focus area. The retention by Scaw Metals of apprentices who complete their training is high and this young, well-trained and potentially high earning group is an important target group for the maintenance of a negative HIV status. It is easier to change behaviour at a young, impressionable age and hope this is maintained through the individual's life. During 2004, management invited Lovelife, an NGO working closely with the Anglo group in the fight against HIV/AIDS, to draw up a special training programme for apprentices. The course is comprehensive and allows for both formal learning and informal discussion. The first course was very well received by the apprentices, who asked for a follow up day on selected topics they chose. This course will now be a feature of all apprentice training in the group.

Review of 2004

The HIV/AIDS programme is based on three pillars which include:

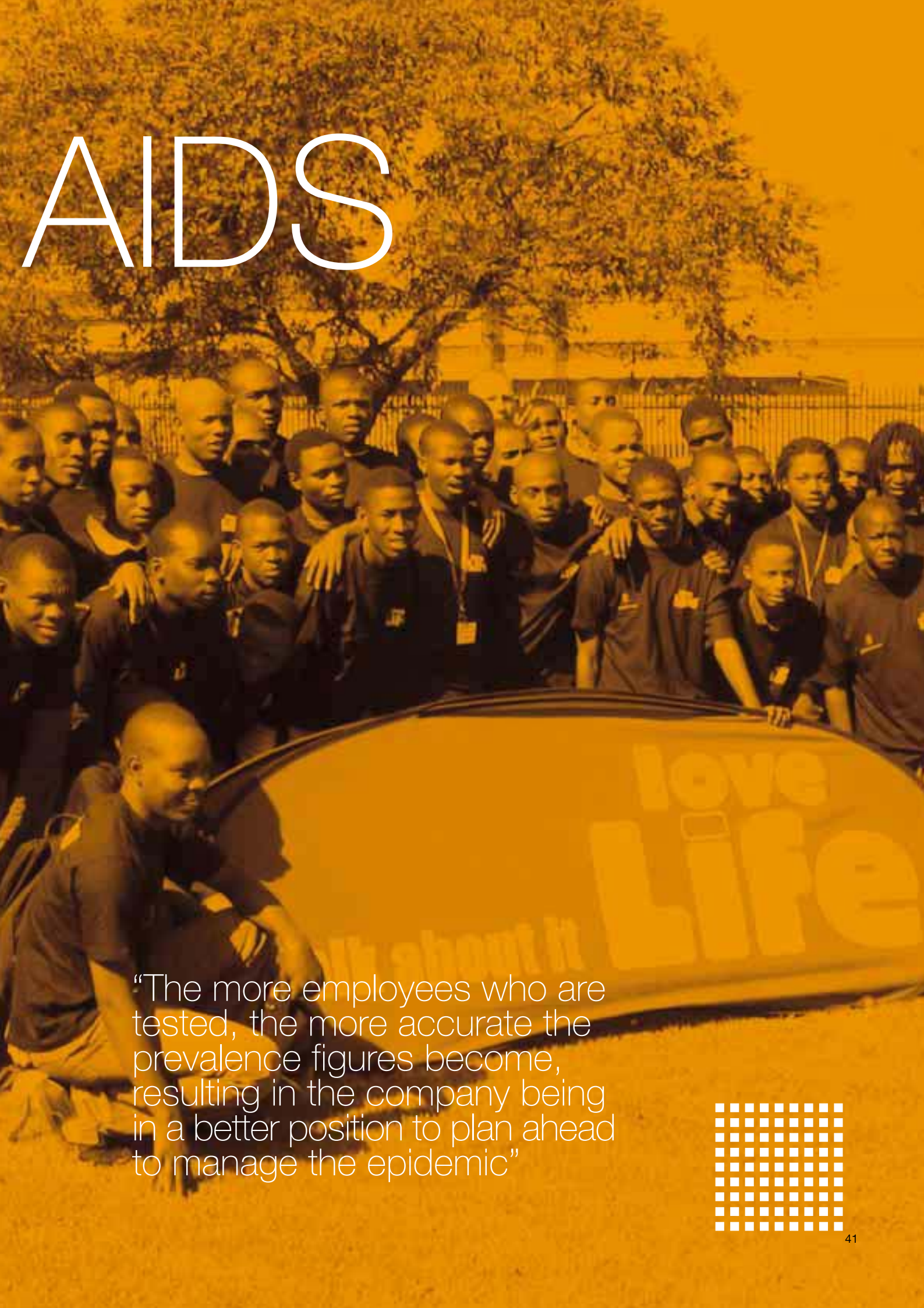
- Voluntary Counselling and Testing (VCT)

The VCT programme this past year has been successful and the number of employees who have come forward to be tested has increased sixfold. This positive turnaround needs to be built on in the future. The theme that has been used is that of "Know your status". The more employees who are tested, the more accurate the prevalence figures become, resulting in the company being in a better position to plan ahead to manage the epidemic and to provide employees with anti-retroviral therapy at the appropriate time.

- Employee Wellness Programme

Once an employee has been diagnosed as being HIV positive, he or she is automatically placed onto the wellness programme. Following the finger prick test (Rapid test), a blood sample is taken from the employee and sent to an external laboratory for confirmation of the HIV status. At the same time the blood is sent for a CD_4 count so that an immediate assessment can be made of the stage of disease development. Thereafter, the employee is scheduled to be seen at specific intervals. At each of these scheduled contact sessions, the employee is counselled, weighed and a CD_4 count taken to determine if the employee is ready to start anti-retroviral therapy.

AIDS



"The more employees who are tested, the more accurate the prevalence figures become, resulting in the company being in a better position to plan ahead to manage the epidemic"

- Anti-Retroviral Therapy (ART)

When ART was first introduced, many of the employees who began therapy were HIV-advanced and often very ill. The outcomes in this group were variable. However, with improved voluntary counselling and testing (VCT) and the employee wellness programmes in place, the decision to treat will be made earlier in many instances and it is likely the outcomes will be better in the future.

HIV Prevelance Rates

The actuarily estimated HIV prevalance performed four years ago calculated a figure of 18% for the group in South Africa in 2004.

Recent ongoing prevalance studies indicate this figure to be significantly lower at about 12%. There is now better data to carry out these studies.

Furthermore, it is estimated in some areas that the epidemic has peaked in 2004 and the prevelance rate will start decreasing. This is partly due to the fact that the labour turnover in the group tends to be low and that the average age of existing employees is high; thus making new HIV infection less likely and the majority of those that are negative will remain negative.

Performance

Voluntary Counselling and Testing

2002		2003		2004		Total	
No. Tested	% Workforce Tested	No. Tested	% Workforce Tested	No. Tested	% Workforce Tested	No. Tested	% Workforce Tested
253	4	313	5	2067	32	2633	41

All sites have wellness programmes in operation and these are starting to function effectively.

At year end there were 90 employees on ART of which 70% were meeting the criteria of improved CD_4 count and undetectable viral loads. This is in line with international results and 95% of these employees are at work performing their normal duties.

Objectives 2005

Although there has been a significant improvement in VCT, this needs to be built on and a further increase in uptake needs to be achieved. A target has been set of 90% of employees tested by end of 2006.

Once diagnosed as HIV positive, employees need to be placed onto wellness programmes. Even when individuals decide to see traditional practitioners and take herbal medicine, they must still be called in for counselling and follow-up.

It is also important to assist local clinics in the communities where our employees and their families live, to develop capacity to treat with anti-retrovirals. The Governments' roll-out of its ART programme has been slow. At present, NAFCI (National Adolescent Family Clinics Initiative) and Lovelife have been liasing with four clinics on the East Rand to implement programmes.

HIV/AIDS Case Study 1

World AIDS Day - 1 December 2004

The group as a whole threw its weight behind the war against HIV/AIDS on World AIDS Day on 1 December 2004. Employees from the Benoni works took to the streets with banners. Management, employees, union representatives and group clinics took the initiative with campaigns that encouraged employees to: Take Action! Know your HIV status. The same message was printed on caps and T-shirts that were handed out with condoms and HIV/AIDS literature. On that day and for a few days afterwards employee uptake of voluntary counselling and testing went up sixfold.

HIV/AIDS Case Study 2

HIV/AIDS Apprentice Training with Lovelife

Learning about one's HIV status provides incentives for those tested negative (and that is still the vast majority) to stay negative and for those tested positive to take precautions to protect loved ones, while at the same time taking steps to preserve one's own health through enrolling in wellness programmes and seeking medical treatment, including ART, when appropriate.

The HIV/AIDS' training programme provided by Scaw Metals is a combination of substance abuse education and basic homebased care that assists in changing the behaviour of its apprentices. Studies have shown that substance abuse is one of the main contributors to high risk behaviour. It is therefore a key component of the education conducted by the Lovelife programme.

The HIV/AIDS training content was divided into three sections, the first being self-help and basic home-based care on HIV/AIDS, second, drug and substance abuse and third, a motivational speaker. The topics were covered in detail over one day.

Basic Home-based Care

- HIV/AIDS disclosure.
- Healthy lifestyle (self-help, staying healthy and food for positive living).
- Guidelines to opportunistic infections associated with HIV/AIDS.
- The cycle of grief.

Drug and Substance Abuse

- Depressants (alcohol, cannabis, mandrax).
- Volatile substances / inhalants.
- Stimulants.
- Hallucinogens.
- Addiction.
- Dependence.
- Tolerance.
- Process of addiction.
- Peer pressure in relationships.

Speaker

- HIV motivational speaker.

The training highlighted the importance of a nutritional diet and living a healthy and balanced lifestyle. It brought the realisation to most of the apprentices of the need to change eating habits, the danger of living a pessimistic lifestyle and the strain it has on the immune system. The training session on the cycle of grief was valuable. The apprentices identified with each other and discussion was facilitated around the feelings of losing a loved one through AIDS and dealing with death.

The section on substance abuse raised a lot of questions and made apprentices think about their behaviour today and how it will impact on their future goals. Some of the apprentices admitted that they were in the second phase of addictive behaviour.

Substances like cannabis were a major talking point at the training session. The motivational speaker, who is HIV positive and lives a positive life, shared an optimistic attitude to life and made a lasting impact. The comment from one of the apprentices was: "It is my first time to come into contact with someone that openly discloses his status and lives life positively".

As a result of the HIV/AIDS training, many of the apprentices underwent a voluntary HIV/AIDS test to determine their status.

A core group of apprentices who attended the initial HIV/AIDS training and showed an interest in becoming volunteers as peer HIV/AIDS educators were trained as educators by LoveLife for three days late last year. These HIV/AIDS educators will be involved at Scaw Metals and in their respective communities with HIV/AIDS awareness and prevention activities from 2005.

Scaw declares war on HIV/AIDS - World AIDS Day, 1st December 2004.

labour practices

Employees

The group employs more than 7 000 people throughout the world. The distribution of employees is displayed in the table overleaf.

Employment Opportunities

Most of the Scaw Metals' operations have operated on their current sites for many decades, and the businesses are well known to their communities as major employers providing long term careers. Positions with Scaw are sought after, especially those offering apprenticeships and learnerships leading to certification of qualifications in terms of the Skills Development Act. During 2004 the group experienced a 2% labour turnover due to resignations.

The business has a proud tradition of technical training, offering apprenticeships in a number of trades. Apprenticeship qualifications obtained are recognised throughout the industry. The majority of successful apprentices go on to enjoy long and fruitful careers in the company. Practical training for learner technicians in metallurgy, chemistry, electrical and mechanical engineering is also offered for young Technikon graduates who wish to build a career with Scaw Metals.

In consultation with stakeholder unions, the group also provides a limited number of employment opportunities to dependants of retired and deceased employees in order to assist poor families.

Rope testing at the Steel Wire Rope factory.

The group offers employees competitive remuneration packages, which include subsidised membership of a medical aid scheme and membership of a retirement fund.

A table on page 47 shows the history of Scaw Metals' apprentice training over the past 10 years.

Labour Relations

The group endorses the rights of employees to freedom of association and to collective bargaining.

The Scaw group is a registered employer in the steel and engineering sector of the South African economy. This sector has an established Bargaining Council at which the major employers and trade unions are represented for the purposes of central collective bargaining and establishing the basic conditions of service for the majority of employees in the industry. Presently, 82% of the South African workforce belong to various trade unions.

The trade unions play a significant role at industry and company level, representing their members in a range of matters including setting conditions of service, and consulting on training and employment equity.

The unions also fulfil other important roles including representing their members in grievance and disciplinary matters. Each business site has its own union composition and shop steward structure representing employees. Management at the sites meets and consults regularly with these structures on shop floor issues. Scaw Metals' management enjoys mature and professional relationships with these unions at both industry and individual company level.

With regard to security of employment, there are established procedures embodied in the South African Labour Relations Act as well as Bargaining Council codes of practice for handling the introduction of major changes to operations which may result in job losses. These procedures are comprehensive and include disclosure of information, and full consultation with the employees and their trade unions on all aspects of the planned changes and the impact these have on staff. Retraining and seeking alternative employment opportunities are prominent features of the discussions.

"Most of Scaw Metals' operations have operated on their current sites for many decades, and the businesses are well known to their communities as major employers providing long term careers"

Training and Education

Training, education and development are underpinned by the principles of current skills development legislation in South Africa. Management interacts with trade unions at each operation to consult on skills development plans and training activities for the year. Skills development is aligned to the strategic business objectives that include productivity improvement, safety, health and environment, product quality, customer relations and human capital development.

Apprentice Training

The group has a long-standing commitment to training skilled artisans for its operations. Since 1993, 227 apprentices have qualified as artisans from Scaw Germiston's Training Centre. Another 190 apprentices are currently at various stages in training. To train an apprentice to qualify as an artisan takes up to four years of institutional training and practical on-the-job training. Scaw Metals has also embarked on implementing learnerships which provide employees with structured learning and experience that will culminate in a qualification recognised by the National Qualification Framework (NQF). At present, the group has registered learnerships in arc furnace steel melting practices as well as chain making. Trainees on both schemes are progressing well.

Bursaries: Children of Employees

Various benefits are offered to employees, including a school bursary scheme in which children of employees with more than five years service qualify for a bursary to assist one high school child per family - this covers part of school fees, books and school uniforms. In 2004, 330 bursaries were granted.

The group offers a bursary scheme for a limited number of children of employees to further their tertiary education. These bursaries are aligned to the disciplines that can be used in the steel and engineering industries such as metallurgy, engineering, human resources and finance.

Employment Equity

Scaw Metals is committed to the transformation of its workforce to more equitably represent the demographics of the country, particularly in the supervisory and managerial levels of the company.

In compliance with the Employment Equity legislation, the business submits annual reports on progress to increase the numbers of historically disadvantaged employees in supervisory and managerial positions. Employment equity is one of the main subjects discussed with the various trade unions active in the operations. Scaw Metals is committed to making strides in achieving progress in this very important aspect, and has identified employees within the company who are being targeted for accelerated development and training. Efforts are made to attract and retain young professionals from historically disadvantaged backgrounds.

There is a commitment to achieving meaningful representation at all levels in the organisation. The group aims to have a 31% representation in staff categories ranging from foremen level upwards by the end of 2005 and this level has already been exceeded. A target of 40% representivity of historically disadvantaged South Africans in managerial levels has been set for attainment by 2007. Gender issues are also being taken into account with the aim of increasing the number of females in senior positions.

Non-discrimination

As stated in the Anglo American Business Principles, Scaw Metals is committed to creating a workplace in which individuals of ability and application can develop rewarding careers at all levels. This is regardless of their background, race, gender, ethnic or social origin and religion. Unfair discrimination in the workplace is prohibited in law, and management, the employee representatives and trade unions work together to address and eradicate unfair discrimination.

At company level, trade unions play a significant role in upholding and protecting employee rights.

Apprentices in training

Yearly Group Distribution of Employees Since 2002

Operations	Employees as at 31 December 2002	Employees as at 31 December 2003	Employees as at 31 December 2004
South Africa			
Scaw Germiston	2731	2600	2711
Steel Wire Rope	1212	1192	1123
Wire and Strand	413	394	379
Cast Products (Benoni works)	419	456	450
Rand Scrap Iron	207	208	174
Flather Bright Steel	83	80	83
Chain Products	369	435	455
CWI	739	628	608
Fibre Products	133	128	124
Sales Branches	209	212	206
Total	**6515**	**6333**	**6313**
Outside South Africa			
Zambia	68	72	72
Zimbabwe	250	304	262
PWB Anchor (Australia)	52	57	59
Reids (Australia)	7	7	7
North America	4	4	4
Moly-Cop Chile	108	110	118
Moly-Cop Arequipa, Peru	44	44	44
Moly-Cop Lima, Peru	31	50	63
Moly-Cop Mexico	62	55	57
Moly-Cop Philippines	33	33	31
Moly-Cop Canada	51	53	53
Proacer, Chile	157	163	178
Total	**867**	**952**	**948**

At any one time there are about 200 apprentices in training at Scaw Metals and nearly 50 qualify and enter industry each year.

Apprentice Training at Scaw Metals Group 1993 - 2005

Intake Year	Number of Apprentices	Qualified	Presently in training
1993	20	14	
1994	24	26	
1995	32	27	
1996	36	35	
1997	38	31	
1998	28	24	
1999	42	31	
2000	22	17	
2001	30	22	8
2002	39		37
2003	47		47
2004	58		51
2005	47		47

community engagement

Community Engagement

In 2004, Scaw Metals spent almost R3 million on a range of community engagement projects summarised below.

Summary of the 2004 projects

- Welding Training School

A community welding training school was established to offer young, unemployed members of the community an opportunity to obtain a basic qualification in welding. The college admits disadvantaged, young, unemployed school leavers who come from very poor families who would otherwise be unable to gain access to formal training.

The welding course is registered with the Metal Industry's training authority (MERSETA) as a skills training course, and ensures that trainees reach certain levels of competence in welding. The course content has standards of learning which are recognised nationally and against which the trainee must be assessed for competency before certificates are granted. Obtaining this level of skill could lead to self-employment in the manufacture of steel products like furniture and security gates. Alternatively, it could increase the individual's chance of finding formal employment in industry.

The training school has the capacity to enroll up to 20 learners at a time and does not charge any fees. The skills course takes place over a three month period, enabling the college to train up to 80 people per annum.

- Computer Skills Training School

A computer skills school was established in 2004. The computer skills school admits young unemployed school leavers who come from disadvantaged families who would otherwise be unable to gain access to formal training.

Training in the general suite of software packages used in commerce and industry is provided, and a certificate of competency is provided to successful trainees.

This course is very new, and the company is still in the process of having it registered and accredited by the industry training authorities.

The computer training school can accommodate 16 trainees at a time. Training is conducted over a three month period which enables 64 trainees to qualify each year. The trainees will be equipped with a skill which will enhance their chances of finding formal employment.

- Read Education Trust

Scaw Metals provided funds to the Read Education Trust to facilitate a literacy project, in conjunction with education authorities, at a school in Katlehong. The prime focus of the programme is to provide training to teaching staff in the principles of school management and teaching methods, as well as upgrading and enriching materials used in teaching English language skills. The project is taking place in a high school serving children of Scaw Metals' employees.

- Goba Clinic, Katlehong

The group has a long association with the Goba Clinic dating back to participation with other companies in its initial funding in 1982. Assistance with some much needed maintenance to the roof and painting of the clinic was provided. The clinic serves many families of employees.

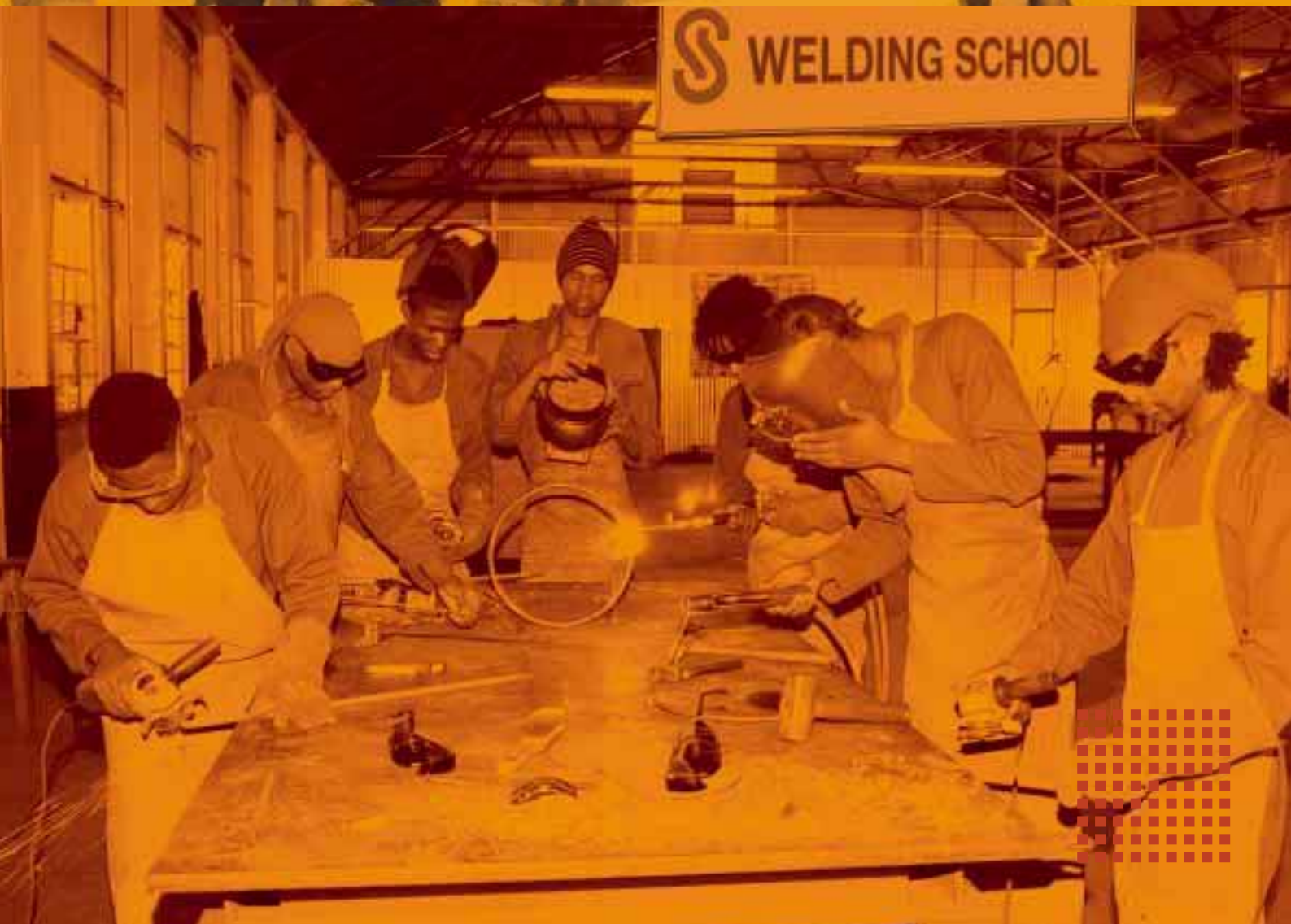
- Igaqasi Primary School, Katlehong

The project to build a computer centre and library at this school is progressing slowly. Plans have been drawn up and agreed with the school staff and are now awaiting approval with the local education authority. It is anticipated that building work will commence in 2005.

- Community Neighbourhood News Bulletin and Wadeville Business Against Crime (WBAC)

Engagement with organisations in the community who are concerned with crime and crime prevention continues. As a standing member of the WBAC committee, Scaw Metals' provides input where possible to reduce crime in the surrounding communities, and makes a significant contribution towards running WBAC. The group also sponsors a local community organisation which produces a newsletter with a focus on crime prevention.


COMPUTER SKILLS
TRAINING COLLEGE


WELDING SCHOOL

- Sports

A variety of sporting activities is sponsored including running, junior cricket and soccer. The teams comprise children from disadvantaged backgrounds who would otherwise not have access to grounds and coaching at the level provided by Scaw Metals.

- BEE Courtwise Sponsorship

The name "BEE" is derived from the bumble bee which defies scientific odds in being able to fly, just as BEE Courtwise wishes to succeed in its endeavours. It is a non-profit company established in response to the poor conviction rate in criminal cases related to child abuse.

BEE Courtwise provides court support and preparation for children testifying in cases where they have been abused, as well as trauma counselling for adults, and children.

BEE was assisted with computer software and hardware at its rooms at the Johannesburg Central Police Station where many of these types of cases are sent for trial. Special witness preparation rooms exist with a child-friendly environment, which allows the children to testify in a more supportive surround than the formal courtroom for adults.

In 2003, Scaw Metals enabled the BEE social workers to set up a small network of computers for their case records and general administration. In 2004, the network was upgraded and additional computers were purchased.

- HIV/AIDS

During 2004, the group supported a HIV Awareness campaign at all of its South African operations. Subscribing to the Business Bannerthon programme, banners were purchased for display at the factories and supporting promotional material was distributed to employees.

Being situated on major roads and near railway stations, banners were placed for maximum impact on both employees and members of the community. Funds collected from the Bannerthon programme are used to assist destitute orphans of those who have died of AIDS.

Employees, contractors and passing members of the community were exposed to the HIV awareness call.

- Overseas Operations

Chile

Operations in Chile have provided support for local police and fire-fighting agencies, and a number of city projects, including anti-drug abuse campaigns. They have also supported sports activities and other charities, including housing initiatives for the poor and a home for abandoned children.

Peru

Operations have contributed to charities and to education initiatives including the construction of a classroom at a nearby school.

Philippines

The company has participated in a joint Government/business initiative to control the spread of TB in the community, as well as contributed to various charities through the Philippines Business for Social Progress, an NGO involved in numerous social programmes.

Canada

Various charities have been supported.

Below: The Scaw Community Training School (for welding and computer skills) held its first graduation ceremony recently. With the graduates are Jameson Mabange, human resources manager (far left), representatives from the Department of Manpower, Karen De Waal (centre, rear) and regional manager for Germiston Puseletso Lukele (in the gold suit) and Tony Harris, executive chairman of the Scaw Metals Group (next to Puseletso).

Dr Walter Stuart (left), Professor John Fleming, Anglo American's Douglas Ramaphosa and the Gauteng MEC for Health, Dr Gwen Ramokgopa, at the February 2005 sod turning ceremony at Chris Hani Baragwanath Hospital.

"The power of public-private partnerships has been demonstrated in the creation of Africa's first stand-alone hand surgery complex"

Operation Hand of Hope

The power of public-private partnerships has been demonstrated in the creation of Africa's first stand-alone hand surgery complex. The complex, being built at Chris Hani Baragwanath Hospital, Soweto, is the result of a partnership between the Gauteng Health Department and leading mining and engineering industry giants, including Anglo American and Scaw Metals, who made the largest contribution with a combined R4,5-million donation.

The new complex has been designed as a Centre of Excellence for first-world upper limb surgery and the training of post-graduate orthopedic surgeons in the reconstruction of severed, damaged or deformed upper limbs.

Gauteng Health MEC Gwen Ramokgopa welcomed the collaboration during her speech at the sod turning ceremony, dubbed Operation Hand of Hope. She said strong partnerships were crucial for a better life for all in Gauteng: "The reason we are interested in public-private partnerships is because they bring concrete benefits to the people in their everyday lives".

The complex will contain two hand theatres, therapy areas for physiotherapy and occupational therapy, out patient rooms, X-ray facilities, an administration section, wards for hand surgery patients and a dispensary, all dedicated entirely to this unit and not shared by other departments.

The creation of the new centre was driven by Dr Walter Stuart, head of hand surgery at the hospital, and his colleague, Professor John Fleming. Dr Stuart said that the new facilities would enable the hospital to drastically improve its service to the public.

The Chris Hani Baragwanath Hospital is the largest hospital in the world and the largest referral centre for hand surgery in South Africa. The hand unit conducts 120 operations each month. The hospital achieved South Africa's first successful hand transplantation and toe to thumb transplantation in the seventies.

glossary

AAplc	Anglo American plc
Aquifer	Strata or a group of interconnected strata comprising of saturated earth material capable of conducting groundwater and yielding usable quantities of groundwater to boreholes
CO_2	Carbon dioxide – a gas formed during combustion and certain natural processes. Increasing amount of carbon dioxide in the atmosphere is widely believed to contribute to climate change i.e. global warming
Environment	The circumstances or conditions that surround us as well as the complex of social or cultural conditions that affect an individual or community
Fatality	The death of an employee or contractor resulting from a work-related injury
FIFR	Fatal injury frequency rate – the number of fatalities per 200 000 hours worked
Golden Rules	A set of non-negotiable corporate safety rules
Greenhouse gas	Gases that enhance global warming, predominantly CO_2
Hours worked	Total number of hours worked by employees, including overtime and training, excluding leave, sickness and other absences. It includes the total number of contractor hours worked on site during the year
HIV/AIDS	Human Immuno Deficiency Virus/Acquired Immune Deficiency Syndrome
ISO	International Standards Organisation
ISO 9001	A quality management system standard published by the International Standard Organisation
ISO 14001	An environmental management systems standard published by the International Standards Organisation
Lost Time Injury (LTI)	Any occupational Lost-Time Injury which renders the person unable to carry out regular duties on the day following their injury, and which results in one or more days away from work: It includes restricted work cases
LTIFR	Lost-time Injury Frequency Rate – the number of lost-time injuries per 200 000 hours worked and includes restricted work cases and contractors
Medical surveillance	Employees who have been identified as being exposed to any significant risk or hazard undergo a regular planned medical examination to ensure their health is not affected by exposure to the risk
MTC	Medical Treatment Case – an injury requiring more than basic first aid
NIHL	Noise Induced Hearing Loss
NLTIFR	Non-Lost Time Injury Frequency Rate – The number of non-lost time injuries per 200 000 hours worked, including restricted work cases and contractors
NOSA	An international organisation providing an integrated auditing and certification service in occupational safety, health and environment risk management. Star ratings, awarded according to an operation's level of compliance with NOSA standards, range from 1 (fair) to 5 (excellent)
Occupational Disease	A disease or illness arising out of and in the course of employment
Occupational Health	The promotion and maintenance of the highest degree of physical, mental and social well-being at work
Occupational Hygiene	The assessment, measurement and evaluation of hazards and risks in the workplace and the preventive measures that need to be applied to safeguard the health of employees
OHSAS 18001	A management system published by the Occupational Health and Safety Assessment Series
Recycling	Processing of old discarded materials into new, useful products
RWC	Restricted Work Case in which work activity is restricted and in which an employee cannot perform his or her regular duties.This is classified as a Lost Time Injury
Severity Index	A ratio of the number of shifts lost per Lost Time Injury
SHE	Safety, Health and Environment
SO_2	Sulphur dioxide – a colourless, corrosive gas formed during combustion and natural processes
Stakeholders	Employees, contractors and other parties who have a material interest in the Scaw Metals Group
Sustainable development	An improvement in human well-being that allows the needs of the present to be met without compromising the ability of future generations to meet their own needs, focusing on social, economic and environmental aspects
Total energy consumption	Calculated from electricity purchased and fossil fuels consumed
TRCFR	Total Recordable Case Frequency Rate – The sum of fatalities, lost time injuries and medical treatment cases per 200 000 hours worked, including employees and contractors
Waste stream	Steady flow of varied wastes, from industrial, commercial and construction refuse

Abbreviations and conversions for units of measurement

m^3:	1 cubic metre = 1 000 litres = 264,1 US gallons = 220 UK gallons
Tonne:	1 metric tonne = 1 000 kg = 2 205 pounds
MWh electricity:	1 Megawatt-hour = 3,6 Gigajoules (GJ)

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A landmark achievement in stay cable innovation.

The Nelson Mandela Bridge is a new South African landmark, holding the promise for a revitalised Johannesburg inner city. About 100 tonnes of stay cable strand manufactured by Scaw's Wire and Strand factory was used in the construction of this landmark.