

The advanced materials group



Morgan Crucible is a world leader in advanced materials.

Our highly skilled, dynamic people provide high-technology solutions which help make the world safer, healthier and more efficient.

Group strategy

Our vision

- Our vision is to be one of the world's very best advanced materials companies.

Our aim

- Our aim is to create long-term sustainable shareholder value.

Strategic priorities

- Focus on higher growth, higher margin, non-economically cyclical markets.
- Be high value-added to our customers.
- Be number one or number two in our chosen market segments.
- Have a culture of operational excellence and cost efficiency.
- Find, keep and develop the right people.

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Introduction



Kevin Dangerfield
Chief Financial Officer

I am pleased to report that our environmental and health and safety performance improved in the past year and that more of our revenue is generated by products and services which benefit the environment and enhance sustainability.

Morgan Crucible is a world leader in advanced materials dedicated to creating long-term sustainable shareholder value. Excellence in environmental and health and safety performance through continuous improvement makes sound business sense and is in the interests of all our stakeholders.

Our environmental and health and safety (EHS) programmes are integral to our business, aligned with our Core Values Statement – which is published on our website – and our strategic priorities. In last year's report I said that we would continue to build on our EHS programme and achievements in 2009 and I am pleased to report that in many areas our environmental, health and safety performance improved during the year.

Much of the Group's production involves energy intensive high-temperature processes. Therefore climate change related emissions are a key challenge for us. During the economic downturn, the utilisation efficiency of many of our high temperature processes decreased and therefore in 2009 the CO₂ intensity from these businesses showed a small increase. However, the integration of the NP Aerospace business, with its relatively low energy intensity, meant that overall the Group's CO₂ intensity was down by 14% in 2009.

Internally we continue to work on multiple programmes and initiatives, particularly in our high temperature processes, to conserve energy and reduce our carbon footprint in absolute and relative terms and I can report that we are beginning to see encouraging results from these initiatives.

During the year we have increased the robustness of our EHS KPI data and we will be using this to set and monitor new EHS targets during the course of 2010.

Externally, an increasing amount of our revenue is generated by products and services which have a positive environmental effect and enhance sustainability. Further examples of the Group's products which make a positive contribution to sustainability are included on pages 14 and 15.

Our initiative to improve EHS management and performance in China has continued during the year and we are extending the programme to our Indian facilities during 2010.

I look forward to reporting on our further progress next year, but in the meantime, if you have any comments or suggestions, please let us know.

Kevin Dangerfield
Chief Financial Officer
April 2010

Morgan Crucible at a glance

Morgan Crucible is a world leader in advanced materials with 2009 revenue of £942.6 million and Group EBITA* of £89.0 million. Listed on the London Stock Exchange, and a member of the FTSE4Good index, Morgan Crucible's three Divisions employ some 9,400 people around the world with operating sites in 34 countries serving customers in over 100 countries.

Our Divisions

Carbon Division (2009 revenue £391.4m)

The Carbon Division is a global provider of advanced materials technology with extensive expertise in the processing and application of carbon, graphite, silicon carbide, oxide ceramics and related materials. This includes advanced composite technology developed within the ballistic protection business. Working at the forefront of materials technology, the Division is a world leader in the development of value-added customer solutions through engineering innovation and an understanding of industry-specific needs, opportunities and challenges. The Division has sites in 25 countries, and employs some 3,400 people worldwide.

Core products/applications:

- Electrical brushes
- Seals and bearings
- Protective ballistic armour
- Ultra high-temperature insulation

Target markets:

- Defence and protection
- Electrical current transfer systems
- Fluid handling
- Power generation
- Semiconductor processing

Technical Ceramics Division (2009 revenue £206.0m)

The Technical Ceramics Division utilises advanced ceramic, glass, precious metals, piezoelectric and dielectric materials combined with innovative design and applications engineering to provide an extensive range of ceramic components, assemblies and related products for niche technological applications in selected markets. In many applications, the technology provided by Technical Ceramics defines the performance of the customer's end product. The Division is a world leader in its target markets with sites in 6 countries around the world, employing some 2,600 people.

Core products/applications:

- Ceramic cores for complex turbine blades
- Components for electron tubes
- Feedthroughs for medical implants
- Piezoelectric ceramic actuators

Target markets:

- Aerospace
- Medical
- Industrial equipment
- Power generation
- Electronics

Insulating Ceramics Division (2009 revenue £345.2m)

The Insulating Ceramics Division designs, manufactures and installs a wide variety of engineered solutions from its range of world-renowned advanced insulation and thermal management products. These solutions help customers to protect equipment and personnel and to reduce energy consumption in their processes and, in many applications, reduce emissions to the environment. The Division is a world leader in the production of insulating fibre, insulating fire bricks, monolithics and crucibles, with sites in over 30 countries around the world and employing more than 3,400 people.

Core products/applications:

- Engineered thermal management solutions
- High-temperature insulating fibres
- High-temperature insulating fire bricks
- Monolithics
- Crucibles and furnaces

Target markets:

- Metals/Iron and steel
- Petrochemical
- Fire protection
- Ceramics
- Power generation

* Operating profit before restructuring costs, other one-off items and amortisation of intangible assets.

Taking our responsibilities seriously.

Corporate responsibility is integral to Morgan Crucible's business. We take the needs and expectations of our key stakeholders into account as we work to implement our five strategic priorities. Our framework of policies, procedures and reporting helps to ensure our approach is consistent worldwide.

Focus on sustainability



Many of Morgan Crucible's products and services help to improve the sustainability of our customers' operations. For example, Thermal Ceramics' advanced high-temperature insulation solutions dramatically reduce energy consumption and associated emissions in the metals, petrochemical, power generation and other sectors of the economy. Whilst the energy saved by the use of our products may exceed the amount consumed in their production by a wide margin, we cannot be complacent. Internally we continue to work to conserve energy and reduce our carbon footprint in absolute and relative terms. As a result, and including the impact of NP Aerospace, our CO₂ emissions intensity was down by 18% over the past two years and we are targeting further reductions in the coming years.

Science, Engineering & Technology Student of the Year



To help foster the best engineering talent, Morgan Crucible sponsors the annual Science, Engineering & Technology Student of the Year Awards. Morgan Crucible is proud to sponsor this event as we believe it allows high-calibre students to showcase their remarkable research work and demonstrates the capability of graduates in the UK. The 2009 winner of the Best Materials Student award, Michael Robinson from Sheffield University, received his award from Mark Robertshaw, Chief Executive Officer of Morgan Crucible.

New training centre



A new training centre has been opened at the Carbon Division's site in South Africa, providing greater flexibility to support a range of training initiatives from adult basic education through to production technology qualifications.

Overview

About this report

This is our sixth annual EHS Report. It summarises Morgan Crucible's environmental, health and safety performance in the year to 3 January 2010 covering the available data for the whole Group. It also details our policies and management systems.

Our EHS policies and programmes support our five strategic priorities and our Core Values Statement which commit us to incorporate environmental sustainability in our product development programmes and to strive to minimise the impact of our operations on the environment. We are also committed to ensuring that the working environment is safe and that all individuals take responsibility for achieving this.

The health and safety data in this report covers 100% of our employees and the environmental data covers 100% of our production site sales, including the NP Aerospace business in which the Group took a 60% stake in January 2009. This changes the profile of the Group as, in general, NP Aerospace's ratio of environmental impact to sales is lower than that of other parts of the Group. Where possible we ensure meaningful comparisons between annual performance indicators are available.

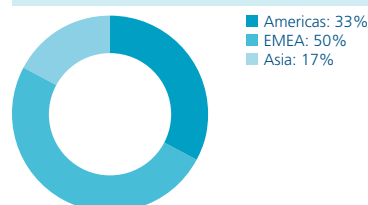
Many of Morgan Crucible's products and services help to improve the environmental sustainability performance of our customer's

products and operations. Although we have not sought to quantify this benefit, a key part of our contribution to sustainability is the development and supply of new and improved products.

About Morgan Crucible

Morgan Crucible is a world leader in advanced materials providing high-technology solutions for specialised applications in selected global markets.

2009 Revenue by destination %



	2009	2008	2007	2006
Revenue (£m)	942.6	835.0	693.2	677.8
EBITA [~] margin (%)	9.4%	13.0%	12.7%	11.1%
R&D spend [#] (£m)	14.6	11.4	8.7	8.2
Dividends (£m)	18.8	18.8	18.8	13.2
Charitable donations (£k)	302	115	192	146

* Profit from operations before restructuring costs, other one-off items and amortisation of intangible assets.

[~] Includes £0.7 million of capitalised development costs. (2008: £1.6 million, 2007: £nil).

[#] Excludes the amounts spent working with customers and others by way of product enhancement and application engineering.

EHS Policy and risk management

EHS Policy

During 2009 we reviewed and externally benchmarked our EHS Policy. The revised Policy has been agreed by the Executive Committee and approved by the Board. As summarised below, the Policy is made available to all employees and published on the Group's website and intranet. It requires high standards of EHS management at all of Morgan Crucibles' facilities and seeks to provide continuous improvement in environmental, health and safety performance in support of our strategic priorities.

The purpose of our EHS Policy is:

- To maintain a safe working environment for staff, contractors and visitors across all Morgan Crucible companies worldwide (the Group).
- To minimise the impact of the Group's activities on the environment.
- To confirm the Group's commitment to excellence and continuous improvement in Environmental, Health and Safety (EHS) performance.

All employees have responsibility for EHS Policy and related matters:

- The Chief Executive Officer has overall accountability for corporate responsibility matters.
- The Chief Financial Officer is responsible for EHS Policy, strategic direction and performance monitoring.
- The Chief Executive of each of the Group's Divisions has responsibility for EHS performance and reporting within their respective business and for implementing this Policy and ensuring compliance.

- The manager of each operation has operational responsibility for EHS.
- Employees at all levels are responsible for implementing EHS rules and guidance, avoiding potential and actual hazards, for warning others accordingly and for identifying opportunities for improvement.

It is the Group's EHS Policy that all businesses:

- Comply with EHS legislation, regulations and other applicable legal requirements as a minimum standard.
- Conduct operations so as to prevent pollution and reduce the risk of injury or ill-health.
- Include EHS and climate change related considerations in our business decisions, promote resource and efficiency programmes across the Group and minimise the environmental impact of historic, current and future operations.
- Supply products that, when used in compliance with product safety communications and common safety practices, will not present an unacceptable risk to human health and safety.
- Assess and minimise the environmental impact of the Group's products during design, manufacture, use and on disposal.
- Set objectives and targets for the continuous improvement of EHS performance and monitor and report progress internally and externally as appropriate.
- Ensure competence in EHS matters through training and education at all levels of the organisation.
- Conduct periodic reviews of the Group's Environmental and Health & Safety management systems.

- Maintain communications with stakeholders on EHS matters to help ensure alignment with their needs and expectations.
- Encourage our business partners to adopt this same accountability.

The Policy applies to all Group companies worldwide. Our businesses are required to ensure that they are aware of and take account of national, regional and local EHS laws and regulations and best practice, including that set out in the Morgan Crucible EHS Good Management Practice Manual.

In addition to Morgan Crucible's Group-wide EHS Policy, our operations have supplementary environmental and health and safety policies where necessary according to the risks, opportunities and needs of each particular business.

Risk management

Our operations involve the normal environmental and health and safety risks associated with manufacturing and other activities in the countries in which we operate. Our EHS management processes are based on risk assessment and the management and mitigation of risks which could impact the Group's long and short term performance and value. The risk management process also helps to identify business and performance opportunities.

EHS Policy implementation

Morgan Crucible's EHS Policy forms the basis of our environmental, health and safety management systems and processes. The core objectives of our systems are to identify legal and other requirements and to monitor and continuously improve performance in support of our strategic objectives.

The management of our environment and health and safety performance is aligned with the operation of our day-to-day business. The Chief Financial Officer has specific responsibility for EHS Policy, strategic direction and performance monitoring, supported by the Director of Environment, Health and Safety. Operational responsibility is delegated to the Chief Executive of each Division and the manager of each operation. In practice, all employees are responsible for ensuring that our EHS Policy is implemented and for identifying additional areas and opportunities for further development.

Morgan Crucible's EHS management processes include the EHS Compliance Audit Programme. This programme helps ensure compliance with national and other regulatory requirements and with good management practice. The audits help to identify how sites can anticipate and respond to developing and impending regulations and improve their EHS performance to meet internationally accepted good management practice standards.

In Europe and Asia-Pacific, the programme is conducted by external auditors, whilst in the Americas it is conducted by internal experts and reviewed by external consultants. Where necessary, sites are required to develop a corrective action plan following the audit, and these actions are regularly tracked by the audit teams.

The Group's manufacturing sites are audited on a three year rolling cycle. During 2009 33 sites were audited, including all seven of the Group's sites in China. These audits provided independent external confirmation of the effectiveness of the Group's Chinese EHS training and improvement programme. Our objective for 2010 is to audit a further 26 sites.

Environmental management systems are in place at 89 sites worldwide, representing over 90% of output, including 34 major sites or 38% of sales certified to ISO 14001 (2008: 27 sites and 43% of sales). Seven sites achieved certification in 2009 and excluding NP Aerospace 47% of sales were certified to ISO 14001. We plan for the two main NP Aerospace sites and a further three other sites to be certified over the period 2010-11. These additional certifications are in addition to the ongoing programme of recertifications. All of our major sites worldwide have health and safety management systems in place, with seven sites certified OHSAS 18001 and a further three sites planning certification over the period 2010-11.

EHS training in China and India



Training is an integral part of our EHS Policy implementation. During 2008 we implemented an in-depth EHS training programme at all of the Group's facilities in China. The programme was carried out with the assistance of external consultants and included comprehensive training of senior management and the development and implementation of EHS management systems at all sites. The EHS Compliance Audits carried out at all of these facilities in 2009 showed a substantial improvement in EHS performance. A small number of areas requiring further improvement were identified and these are being addressed in the next stage of the programme, which is currently underway.

The success of the Chinese programme demonstrated the benefits of focused EHS training and a similar programme is being developed for the Group's six manufacturing facilities in India. This programme will be implemented in 2010.

EHS Policy effectiveness

In addition to the EHS Compliance Audit Programme, the Group monitors the effectiveness of its EHS Policy through a series of EHS key performance indicators (KPIs). These are reported Group-wide and the Executive Committee and the Board receive reports every six months. During 2009 we extended our EHS reporting to cover NP Aerospace following the Group's acquisition of a majority stake in that business in January 2009.

The charts in this report summarise the Group's EHS performance in real terms, covering 100% of production sites during the year. Where necessary, historic data has been restated to reflect changes to the business with environmental intensity KPIs reported at constant currency. The verification of our environmental, social and governance disclosures is discussed on page 17.

Environmental performance

Wherever possible we work to minimise the impact of our business on the environment.

Morgan Crucible's key environmental impacts include the emissions due to the use of energy in our processes and facilities, the consumption of raw materials, water use and discharge, the recycling, discharge and disposal of waste and the impact of our products on our customers' environmental performance.

In a number of areas, Morgan Crucible has direct control of its environmental impacts, whilst in others although we have influence, our suppliers have direct control. Where possible we report on both of these. In future we plan to report on the impacts of business travel where cost-effective data is available.

Reducing CO₂ emissions through energy efficiency



The energy and CO₂ reduction team at the Technical Ceramics site in Stourport, UK made significant progress in improving energy efficiency in the year. The team focused on three complementary sets of initiatives to cut energy use:

- 'Behavioural initiatives' including colour coding switches to show when equipment can be switched off and by whom.
- 'Structural initiatives' such as improving kiln insulation, motor controls, lighting and the site-wide compressed air systems.
- 'Operational initiatives' including changes to the ways in which kilns are loaded and unloaded and operated.

As a result, the site cut its energy use by 300MWh per £million of sales and CO₂ emissions by 74 tonnes per £million.

Over the next two years the team plans to work on metering gas and electricity use by process to help drive greater efficiency by allocating energy use by manufacturing cell.

EHS Policy effectiveness continued

Total CO₂ intensity*

Tonnes CO₂ per £m sales[#]



Energy intensity**

kWh per £'000 sales[#]



Energy use and emissions intensity

Much of the Group's production involves the use of high-temperature processes. We report the environmental impact of the energy used in these process and elsewhere in our facilities as equivalent CO₂ emissions, indexed to turnover. This takes into account the use of all sources of energy. We assess site, Divisional and Group performance on the basis of energy and emissions intensity i.e. energy use relative to turnover.

In absolute terms total CO₂ emissions due to energy use were some 393,000 tonnes against 464,000 tonnes in 2008, 444,000 tonnes in 2007 and 419,000 tonnes in 2006.

Our target for the two years 2009-10 is to reduce the intensity of our CO₂ emissions from all sources of energy use by 5%. During the economic downturn, CO₂ emissions intensity excluding NP Aerospace increased by 5% as a result of the lower utilisation efficiency of many of our high-temperature processes. However, the integration of the NP Aerospace business with its relatively low energy intensity meant that overall the Group's CO₂ intensity was down by 14% in 2009. In the coming year our objective to achieve further improvements and to ensure we meet our two-year target.

In addition to improving energy consumption and emissions performance through increased efficiency, changes in our business and product mix influence our energy use and emissions when indexed to turnover. Emissions are also affected by changes in national electricity CO₂ conversion factors.

'World Class Manufacturing' programme cuts waste and resource use



The plant at Saint-Marcellin, France has been demonstrating the environmental benefits of the Thermal Ceramics 'World Class Manufacturing' (WCM) programme. WCM is a holistic vision for market-leading performance, involving all employees. It is being rolled out to Thermal Ceramics plants world-wide and its objectives include the elimination of waste, increased productivity and reduced resource intensity.

Saint-Marcellin's energy reduction team focused on the fibre production process and undertook a root cause analysis to identify the reasons for high energy consumption. The cause was erosion of the furnace's insulating refractory material. Counter measures have been applied to two of the site's four furnaces helping to reduce the site's overall energy intensity by 235MWh and CO₂ emissions by 19 tonnes per £million of sales.

WCM also has the objective of eliminating waste to landfill. The Saint-Marcellin team were able to increase reuse of process waste by colour coding it by type of fibre, enabling it to be re-melted. They reduced the amount of waste produced by cutting the need to keep the furnaces running to prevent overheating when the fibre production process was interrupted for maintenance, etc. They maximized recycling by segregating waste streams. The combination of these measures cut waste intensity by some 60 tonnes per £million of sales in 2009.

* CO₂ equivalent from all energy sources, including country specific electricity

** Energy from all sources including electricity, natural gas, fuel oil, LPG etc

[#] Constant currency basis, including inter-company sales

EHS Policy effectiveness continued

Total waste intensity*

Tonnes waste/£m sales[#]



Recycling %

% of total waste recycled



Waste and recycling

Waste management is a key area of focus for the Group with opportunities to reduce our use of raw materials, packaging and other consumables. In addition to saving money through waste reduction, by recycling certain waste streams we can turn costs into revenue.

We monitor hazardous and non-hazardous waste at a site, Divisional and Group level according to waste stream and disposal route, assessing performance on the basis of waste intensity (i.e. waste quantities indexed to turnover). We also monitor and target the proportion of total waste which is recycled.

Our 2009 waste and recycling related performance was mixed. Including NP Aerospace waste intensity was down by 11% in the year (10% increase excluding NP Aerospace). The proportion of total waste which was recycled was 28% in 2009, down one percentage point on the prior year. Thus we are not on track to achieve our target to increase the level of recycling to 35% of total waste over the period 2009-10.

Some 17,000 tonnes of waste material was recycled during the year. This included 750 tonnes of paper and cardboard, 80 tonnes of plastic, 288 tonnes of wood and 349 tonnes of metal. The remainder of the recycled material included scrap, dust, slag and other process by-products which were used by others as raw materials for their processes etc.

A number of major sites recycled over 60% of their waste during the year and reduced their total waste intensity. However, during 2009 the demand for recycled materials was weaker than in previous years and, as a result, some waste intended for recycling was diverted to disposal.

Our objectives for the coming year are to further reduce our waste intensity and to increase the proportion of total waste which is recycled towards the target of 35%.

Management systems help enhance waste management



The Technical Ceramics sites at Corby and Derby in the UK were part of the ceramics businesses acquired from the Carpenter Technology Corporation in 2008.

In 2009 both sites achieved accreditation to the ISO 14001 environmental management, OHSAS 18001 health and safety management and PAS 99 quality management systems. This required them to set up management systems and procedures and to set objectives to improve performance.

One area of focus for improvement was waste management. Both sites overhauled their processes with the objective of reducing the amount of waste generated whilst increasing the proportion of waste which is recycled. By working with their waste contractors the site teams cut the waste intensity at both sites by over 50% and increased the proportion of total waste which is recycled by over 200%. As the new systems and processes are further embedded, both sites are targeting further improvements in 2010.

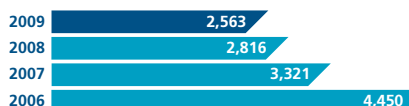
* Hazardous and non-hazardous waste, including recycled material

[#] Constant currency basis, including inter-company sales

EHS Policy effectiveness continued

Water intensity

m³ water use per £m sales[#]



Water use and intensity

We include information on all water used for potable, sanitary, irrigation and process purposes from both on-site extraction and from local authority and similar sources. A significant proportion of the Group's water usage is in production processes, approximately 60% of which is subsequently discharged. We monitor use of water from all sources and assess performance on the basis of water intensity.

Total water use in 2009 was 2.52 million m³, down from 2.82 million m³ in 2008. This reflects increased awareness of the use of water and a variety of reduction initiatives at sites around the world as well as changes in product mix. Including NP Aerospace, water intensity was down by 9% in 2009 (12% increase excluding NP Aerospace).

Our objective for 2010 is to achieve further reductions in water intensity to ensure we achieve our target for the two-year period 2009-10.

Environmental Regulatory Compliance

During 2009 one of our facilities in the USA received an environmental enforcement notice from the local air permitting authority. Following an investigation it was established that the notice resulted from a misunderstanding on the part of the agency and the matter has since been resolved.

A site in the USA received a notification relating to the change-over of dust collection equipment. It was agreed that the change-over was covered by the operational flexibility clause of the site's permit. However, the change-over was not pre-authorised and a minor penalty was imposed.

The Group also has a small number of ongoing remediation programmes to address historical soil and groundwater contamination issues.

[#] Constant currency basis, including inter-company sales

EHS Policy effectiveness continued

LTA frequency

LTAs/100,000 hours worked



Lost time due to accidents

% of working time lost



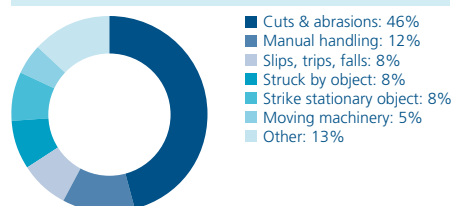
Lost time per accident

Days lost per LTA



Accident causes

%



Health and safety

In accordance with our EHS Policy outlined on page 06 we are committed to conducting our activities in a manner which achieves the highest standards of health and safety for all those affected by our operations. Our long term health and safety objective is to have no accidents.

Our health and safety KPIs include accident frequencies and causes and related lost working time. The Group's accident reporting and analysis systems continue to be refined to enable us to produce KPIs that more accurately reflect the health and safety situation throughout the Group.

During the year, reporting was extended to cover NP Aerospace, following the Group's acquisition of a majority stake in the business in January 2009. The health and safety KPIs in this report cover 100% of employees (2008: 100%)

Our EHS Policy implementation programmes, including the training programme described in the case study on the preceeding page, helped to drive down the frequency of lost time accidents across the Group to 0.56 per 100,000 hours worked. The number of lost time accidents was down by over 25% in the year. Manual handling cuts and abrasions are the most common cause of accidents and we will be working to address this, specifically targeting businesses with below-average performance.

The number of days lost due to accidents was down 13% in the year but, as a result of the reductions in working time at many facilities worldwide, relative lost time performance was flat at 0.14% of working time although many businesses improved performance in this area. However, with the reduced number of lost time accidents, the average time lost per lost time accident increased to 32 days, although this figure includes a small number of more long-term cases. In addition, improvements in reporting means that some health and safety-related lost time may have been categorised as general sickness in prior years and in particular, long term cases were not consistently covered by the 2006-07 data.

Health and Safety Regulatory Compliance

One of our sites in the USA received a health and safety related improvement notice in the year. This related to machine guarding and following corrective action a minor penalty was agreed.

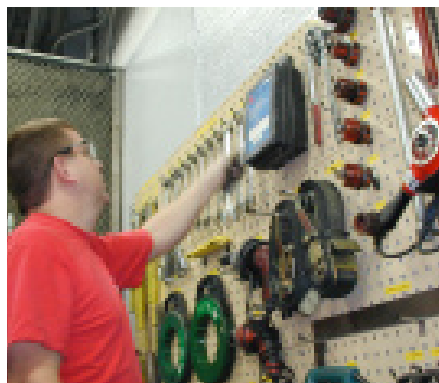
EHS Policy effectiveness continued

Technical Ceramics Americas: 2009 safety awards



The annual safety awards for the Technical Ceramics Division's Americas region are presented at the General Managers meeting in the first quarter of each year. There are four levels of site award: Platinum for zero accidents, Gold for zero lost time accidents and no more than one non-lost time accident, Silver for zero lost time accidents and no more than two non-lost time accidents and Bronze for sites which reduce lost time and non-lost time accident rates by 50% or more. Nine sites received awards for their 2009 performance, including four of the five sites in the Americas acquired from the Carpenter Technology Corporation in 2008, reflecting the substantial progress made at these locations following the extension of Morgan Crucible's systems to the acquired sites.

Carbon Greenville – employee involvement drives a strong safety culture



The Carbon Division's Greenville, SC, USA facility manufactures products from carbon, graphite, silicon carbide and other advanced materials. With over 200 employees the site makes extensive use of band saws, grinders and punch presses meaning that safety is not necessarily easy.

With an active employee driven safety committee the site has built up a strong safety culture. Five years ago Greenville started to include first aid cases in their safety score. Since then the safety record has steadily improved and in 2009 the site achieved an OSHA recordable injury index of 0.49. This equates to less than one recordable injury per 200 employees and is more than 50% better than the industry average. The Greenville maintenance department leads the way – no recordable injuries over the past five years.

Our products: enhancing global sustainability

The Group's Divisions work to help enhance the sustainability of many industries around the world. These two pages highlight select examples of the Group's products which make a positive contribution to the environment.



Quieter and more efficient aircraft engines

Technical Ceramics uses its proprietary materials and injection moulding processes to make the ceramic cores which enable turbine blades to be cast with an intricate network of cooling channels. These cooling channels allow aircraft engines to run at higher temperatures, which makes them quieter and more efficient.

The Carbon Division's materials are used in the seals which protect the main shaft bearings and the lubrication system from the hot combustion gases in the high-speed, high-temperature environment of modern aircraft engines.



Harvesting the wind – reliable wind power generation

Wind turbines are often located in hostile environments around the world and in many cases this makes maintenance a difficult and costly task. The Carbon Division is leveraging its advanced materials capabilities to tailor its portfolio of wind power technologies according to climate. These include slip ring transmitters and rotating current transfer systems, three-phase generator slip rings and environment-specific brush-holders for high current transmission. The use of customised materials helps to increase maintenance intervals, enhancing the economic viability of wind power as an alternative to standard electricity generation processes.



Boosting efficiency in power generation

Rising fuel costs and the escalating demand for electricity is increasing the focus on technology to enhance efficiency in the power generation sector. Thermal Ceramics has developed advanced insulation solutions to help reduce heat losses using its Superwool™ fibre and its insulating fire bricks and monolithics. For example, Superwool™ insulating fibre offers high-temperature insulating capability and low bio-persistence and is seen as the preferred solution for duct and boiler insulation in heat recovery steam generator systems which can help boost power station efficiency by 35%.

Our products: enhancing global sustainability continued



Photovoltaic cells – towards grid parity

The Technical Ceramics Division is leveraging the outstanding mechanical properties and special surface quality of its fused silica roller technology to help manufacturers of thin-film photovoltaic cells to enhance efficiency and cut production costs.

The Carbon Division is a world leader in advanced carbon/graphite-based solutions for the solar industry. These solutions are highly engineered from hybrid materials to provide polysilicon and crystalline silicon manufacturers with the benefits of energy efficient production and enhanced photovoltaic cell performance, bringing grid parity for solar power ever closer.



Helping to cut emissions in the petrochemical sector

The reduction and, where possible, elimination of fugitive gas and product vapour emissions from valves, pumps, compressors and other pressurised equipment is an imperative across the petrochemical sector. Fugitive emissions represent a loss of product and frequently contribute to air pollution and climate change. The Carbon Division works closely with its customers to develop its range of carbon and silicon carbide materials which are used for the seal faces in rotating process equipment. The chemical resistance and self-lubricating properties of the Division's materials make them ideal choices across the industry.



Energy-conserving solutions for the metals industry

Thermal Ceramics provides thermal management solutions to help the metals industry control product quality and conserve energy. Focused on high-temperature applications, world-leading product performance is combined with engineered refractory solutions for the complete metal-making process. Higun™ monolithic refractories are used in blast furnaces, Pyro-Bloc™ insulating fibre modules are used in reheating and heat treatment furnaces, Tri-Mor™ Plascast castable refractories are used to line walls and arches and Tri-Mor Hicast™ Extra and Morflo™ castable refractories and insulating fire bricks are used for hearth and reheating furnaces.

Group EHS targets

In addition to Group targets, our businesses set targets and undertake initiatives appropriate to their specific opportunities for improvement, as is highlighted in a number of the case studies in this report.

Area	2009 Target/ Objective	2009 Progress	Future objective
EHS Compliance Audit Programme	Audit all manufacturing sites on a three-year rolling cycle.	33 EHS audits were completed during the year, including all seven of the Group's manufacturing sites in China.	Continue to audit all manufacturing sites on a three-year rolling cycle. 26 EHS compliance audits are planned for 2010.
Environmental and health and safety data reporting	To include 100% of production sites* which have been part of the Group for the full year.	Reporting was extended to include NP Aerospace which is now majority owned. EHS data is collected systems from all sites worldwide and the data in this report covers 100% of production sites.	Maintain coverage and continue to improve data quality.
Environmental management systems	Continue to extend EMS coverage. Eight new ISO14001 certifications are planned for 2009-10.	Over 90% of sales across 89 sites covered by an EMS. Seven further sites were certified to ISO 14001 during the year. A total of 34 sites are certified to ISO 14001.	Continue to extend EMS coverage. ISO 14001 certification is planned for five further sites over the period 2010-11.
Reduction in emissions intensity	A 5% reduction in emissions intensity due to energy use over the two years 2009-10.	Emissions intensity due to energy use improved by 14% in the year (5% increase excluding NP Aerospace).	Target further site-by-site improvements and work towards our target for a 5% reduction in emissions intensity due to energy use over the period 2009-10.
Increase use of electricity from renewable sources	Increase our use of renewable energy where economically viable.**	The % of electricity from renewable sources decreased from 2.6% in 2008 to 2.2% in 2009. This decline was principally due to uneconomic pricing in the market for renewable electricity.	Increase our use of renewable energy where economically viable.
Reduction in waste intensity	A further 5% reduction in waste intensity over the two years 2009-10.	Waste intensity improved by 11% in the year (10% increase excluding NP Aerospace).	Target further site level reductions and work towards a 5% reduction in waste intensity over the period 2009-10.
Increase recycling	Increase % of total waste which is recycled to 35% over the two years 2009-10.	The proportion of total waste which is recycled was down by one percentage point to 28% (2008: 29%). This was due to the overall reduction in waste and softness in the markets for recycled material.	Increase % of total waste which is recycled to 35% over two years 2009-10.
Reduction in water use intensity	A further 5% reduction in water intensity over two years 2009-10.	Water intensity was reduced by 9% in the year (12% increase excluding NP Aerospace).	Work towards our target for a 5% reduction in water intensity over the period 2009-10.
Health and safety management systems	Ensure all production sites have H&S management systems and encourage the implementation of OHSAS 18001.	All production sites are covered by an H&S MS. Seven sites are certified to OHSAS 18001.	Continue to ensure all production sites have H&S management systems. Three additional sites are planning OHSAS 18001 certification over the period 2010-11.
Reduction in lost time accident frequency	Continue to make progress towards our long term goal of zero accidents.	Lost time accident frequencies were down from 0.69 per 100,000 hours worked to 0.55.	Continue to make progress towards our long term goal of zero accidents.
Reduction in lost time	Increase focus on longer term cases and on reducing the average time lost per LTA.	Average lost time per lost time accident increased from 26.6 to 32.2 days.	Increase focus on longer term cases and on reducing the average time lost per LTA.

* i.e. generally non production sites where the utilities are not included in the lease costs.

** In addition to renewables included in the standard generation capacity.

Notes

→ **1. Data gathering and comparisons**
Our EHS reporting processes are focussed on data that is of EHS and commercial value and are increasingly accurate. Thus improvements in environmental and health and safety performance reporting and measurement may increase some reported figures and require historic data to be restated. Where possible, we ensure meaningful comparisons between annual performance indicators are available.

→ **2. Verification.** Morgan Crucible's environmental and health and safety performance data is consistently reported by all sites worldwide using the same system that is used for the collection of the Group's financial information. The Director of EHS and the Divisional EHS teams work with external independent consultants to review the Group, Divisional and site reports and, where necessary, verify our environmental and health and safety related key performance indicators.

In addition, all Morgan Crucible manufacturing facilities are regularly reviewed under the EHS Group's Compliance Audit Programme. Those sites certified to ISO 9001, ISO 14001, OHSAS 18001 and other standards have regular external audits. Where necessary, the Group also uses external professional advisers in relation to specific health and safety and environmental matters.

The Board considers that these procedures provide a reasonable level of assurance that the Group's EHS disclosures are free from material misstatement whether caused by fraud or other irregularity or error.

→ **3. Guidelines.** A variety of guidelines, reports, standards and other authorities have been consulted and utilised in the compilation of this report. These include the UK Government's Department for Environment, Food and Rural Affairs environmental reporting guidelines, the Global Reporting Initiative's Sustainability Reporting Guidelines 2006, the International Organization for Standardization's ISO14001 standards, and the FTSE4Good Environmental Criteria.

→ **4. External assistance.** Morgan Crucible utilised the assistance of CSR Consulting Ltd. in the compilation and production of this report.

→ **5. Feedback** We welcome your feedback on this EHS report and your comments on ways we could further develop reporting at Morgan Crucible. You can contact us by e-mail at ehs@morganplc.com or write to The Morgan Crucible Company plc, Quadrant, 55-57 High Street, Windsor, Berkshire SL4 1LP, United Kingdom.

Employees who have concerns which cannot be satisfactorily resolved locally may also use the Morgan Crucible Whistleblowing line, details of which are on the Morgan Crucible website and on the intranet.