An international engineering company.

Providers of advanced technology solutions in aerospace, detection, medical and specialty engineering sectors.

Listed on the London Stock Exchange – FTSE 100.

**Aerospace:** a first tier supplier of integrated systems and components to the prime aircraft manufacturers and engine builders. www.smiths-aerospace.com

**Detection:** advanced equipment to detect weapons, explosives, contraband and harmful substances such as chemical and biological agents. www.smiths-detection.com

**Medical:** leading supplier of medical devices used during critical and intensive care, for post-operative care during recovery and home infusion therapies. www.smiths-medical.com

**Specialty Engineering:** provides highly engineered solutions and critical components for diverse applications, ranging from flexible tubing and interconnects through to mechanical seals and marine electronics. www.smiths-specialtyengineering.com

Find Out More
Go to our full EHS report at: www.smiths-group.com/ehs

Making Contact
We welcome feedback on this report, either online or send your comments to Jonathan Garrett, Director, Environment, Health & Safety ehs@smiths-group.com

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United Kingdom
Tel +44 (0)20 8458 3232
Smiths Group plc
Environment, Health and Safety Report 2004

An Introduction to Smiths Group

Vital Statistics

27,000 employees in 40+ countries
(26,000 in 2003).

£2,678 million sales for year ending
31 July 2004 (£2,649 million for continuing operations providing environmental data in this report).

Operating profit of £360 million.

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2 Message from Chief Executive
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6 Stakeholder Dialogue
7 New Group EHS Targets
8 Management Systems

Our Performance
9 Performance Data and Investment
10 Energy and Water Use
11 Waste Management
12 Climate Change
13 Air Emissions
14 Product Stewardship
15 Health and Safety
16 EHS Enforcement
17 Supply Chain Management

Independent Assurance Statement

Global Manufacturing Sites

Manufacturing Sites by Country Providing Data in this Report:
1 Brazil
2 Canada
2 China
1 Costa Rica
1 Czech Republic
1 Finland
4 France
4 Germany
2 India
1 Ireland
3 Italy
1 Japan
3 Mexico
1 Netherlands
1 South Africa
1 Spain
23 UK
44 USA
1 Venezuela

Global Sales and Employees by Region

2003/04 Sales by Geographic Origin
Total sales £2,919 million

- EU 16%
- North America 50%
- Other overseas 7%
- UK 27%

2003/04 Sales by Operating Division
Total sales £2,678 million

- Aerospace 38%
- Detection 12%
- Medical 18%
- Specialty Engineering 32%

Worldwide Employees by Region
Total employees 27,000

- EU 12%
- North America 56%
- Other overseas 6%
- UK 26%

Worldwide Employees by Division
Total employees 27,000

- Aerospace 35%
- Detection 7%
- Medical 20%
- Specialty Engineering 38%
Welcome to Smiths’ third environment, health and safety (EHS) report. This summary report provides an overview of some of our EHS achievements and initiatives undertaken by our businesses around the world over the past year. You can find more detailed information on our website at www.smiths-group.com/ehs.

I believe that good EHS performance is part of good business in terms of reducing business risk, identifying opportunities for cost savings and delivering products with improved performance that meet our customers’ expectations. We have further improved the quality of our data by upgrading our online EHS data collection tool and establishing a common measurement framework for our health and safety performance worldwide. New targets are now in place for accident reduction and reducing our environmental impacts. I believe that these targets are necessary to deliver continual improvement in EHS performance across the Group.

We continue to review our EHS performance and develop our EHS programmes at the highest levels in the Company through the Group EHS Committee and Smiths Group Board. The product stewardship section of this report describes the encouraging results we have achieved through integrating environmental thinking in our new product development processes.

We continue to improve in external ratings of our performance in the UK’s annual Environment Index (formerly the BiE Index) survey of the UK’s top 350 companies. Smiths also participates in other benchmarking programmes such as those managed by the Ethical Investment Research and Information Service (EIRIS) and Innovest’s Eco-21 rating.

An increasing number of our businesses have made progress in the management of our supply chain impacts. A major new environmental supply chain project at Smiths Aerospace commenced in 2004, in partnership with a number of business support organisations. It is seeking to improve the environmental performance of our UK suppliers.

Despite the progress we have made in health and safety management in recent years, a fatality occurred in September 2003 as a result of a machinery accident. The incident occurred at a Polymer Seals business in Sweden during our final few weeks of ownership. Whilst we have not included data from the Polymer business, or other divested businesses, in this report, this tragic accident prompted an additional comprehensive Group-wide review of our management of health and safety in general and machinery safety in particular.

Looking forward, we will continue to give EHS issues a high priority and will focus our efforts on:

- Reducing the number of accidents resulting in lost time and achieve our new 20% reduction target over three years.
- Continuing to reduce the environmental impacts of our operations by meeting our new three-year reduction targets for site energy and water use, waste disposal and solvent emissions (normalised against sales).
- Further development of environmental life cycle thinking in the design of new more environmentally sustainable products for our customers and in preparation for forthcoming product based legislation in Europe.
- Building on the improvements we have made in the quality of our data.
- Implementing ISO 14001 and our health and safety audit tool in our new acquisitions.
- Preparations for the UK’s Operating and Financial Review (covering relevant non-financial performance such as environmental and social considerations).

We value your feedback and I urge you to contact us to share with us your views on the report (see inside front page or go to the Feedback Now section at www.smiths-group.com/ehs).
2004 Highlights

We continue to make good progress on improving the EHS aspects of our operations.

Highlights for the financial year ending 31 July 2004, include:

Our first accident reduction target alongside new and extended eco-efficiency targets for site energy and water use, waste and solvent emissions.

50% reduction in waste tonnage to landfill per £ million sales during 2001-2004.

Site energy and water use decreased by 2% and 14% respectively per £ million sales 2003-2004.

New single worldwide measure of health and safety performance introduced and coverage of health and safety performance data extended to 220 sites (117 in 2003).

Dissemination of eco-design guidelines across the Group for the development of more sustainable products.

77 out of 78 (99%) targeted major manufacturing sites certified to ISO 14001.

4 further manufacturing sites achieved certification to OHSAS 18001.

93 out of 98 targeted major sites completed at least one comprehensive health and safety audit using our AuditMaster™ self-assessment tool by the end of December 2003 (72 sites at the end of July 2003).

John Crane Ireland won an environmental reporting award from ACCA for its 2003 EMAS Statement.

Our Performance at a Glance

<table>
<thead>
<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Site energy use</td>
<td>MWh/£ million sales</td>
<td>215</td>
<td>225</td>
<td>195</td>
<td>191</td>
<td>●</td>
<td>10</td>
</tr>
<tr>
<td>Water use</td>
<td>M³/£ million sales</td>
<td>544</td>
<td>608</td>
<td>550</td>
<td>471</td>
<td>●</td>
<td>10</td>
</tr>
<tr>
<td>Waste disposal to landfill</td>
<td>Tonnes/£ million sales</td>
<td>7.3</td>
<td>6.0</td>
<td>3.9</td>
<td>3.6</td>
<td>●</td>
<td>11</td>
</tr>
<tr>
<td>Greenhouse gas emissions (site energy/process emissions)</td>
<td>Tonnes CO₂ equivalent /£ million sales</td>
<td>80.3</td>
<td>81.5</td>
<td>76.7</td>
<td>74.8</td>
<td>●</td>
<td>12</td>
</tr>
<tr>
<td>Solvent emissions</td>
<td>Kg/£ million sales</td>
<td>117</td>
<td>134</td>
<td>118</td>
<td>122</td>
<td>●</td>
<td>13</td>
</tr>
<tr>
<td>Health and safety</td>
<td>No. of lost time incidents due to injury or illness/200,000 man hours</td>
<td>1.76</td>
<td>1.57</td>
<td>1.34</td>
<td>1.25</td>
<td>●</td>
<td>18</td>
</tr>
<tr>
<td>Enforcement action</td>
<td>Environment (No. fines or prosecutions) Not available</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>●</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>Health and safety (No. fines or prosecutions) Not available Not available</td>
<td>Not available</td>
<td>Not available</td>
<td>3</td>
<td>●</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>Environment Index (BiE)</td>
<td>% score</td>
<td>56</td>
<td>64</td>
<td>69</td>
<td>76</td>
<td>●</td>
<td></td>
</tr>
</tbody>
</table>
EHS Strategy and Sustainability

This report is focused primarily on the EHS aspects of sustainability but we recognise that EHS only forms one part of a range of broader sustainability issues.

Sustainable Development
Every business needs to consider how the commonly quoted Brundtland definition of sustainable development – “meeting the needs of the present without compromising the ability of future generations to meet their own needs” – can be applied in practice. Smiths’ initial strategy has been to focus on EHS issues in our day-to-day activities and on the impact of our products, aiming to:

- Reduce workplace accident rates, using safety management systems, a Group-wide accident reduction target and internal auditing of performance.
- Improve the eco-efficiency of our operations, targeting reductions in our use of energy, other natural resources, fewer emissions and better disposal of waste.
- Integrate environmental thinking into the development of new more “sustainable” products to meet customer expectations and regulatory requirements.
- Reduce environmental risks/incidents and impacts through a management systems approach.

These actions are very much the first steps on the sustainability journey, setting the foundation to help develop more sustainable thinking, operations and products. In addition to getting our EHS focus right, we are also turning our attention to broader sustainability issues such as our new Code of Corporate Responsibility and Business Ethics which is being implemented across the Group (see the Corporate Responsibility section at www.smiths-group.com for more details).

Eco-Efficiency in Operations
Our focus on creating a lean enterprise and implementing management systems, such as ISO 14001, helps us to minimise waste and maximise the efficient use of resources. We have set Group-wide reduction targets for site energy and water use, waste and solvent emissions (normalised against sales) to drive forward our environmental programme. A Group EHS Committee regularly reviews the progress we are making with our EHS initiatives and recommends improvements.

More Sustainable Products
We have significant business interests in defence, healthcare, detection and emissions reduction technologies. Innovation is key to Smiths providing more sustainable products. A number of our new products help reduce our customers’ environmental impacts, improve safety and deliver healthcare benefits:

- Our safety syringes reduce needle-stick injuries.
- Our insulin pumps improve quality of life for diabetes sufferers.
- Our avionics systems deliver improved energy efficiency and fuel savings for aircraft.
- Our mechanical seals help customers reduce environmental impacts and comply with increasingly stringent regulations.

Our ISO 14001 systems, procedures, design teams and the dissemination of Smiths’ case studies and new eco-design guide have raised awareness at all levels of the Group of the need for environmental thinking to be integrated into new product design.

We have achieved both environmental and business benefits (including cost savings and better functionality) from applying environmental life cycle thinking to the design of new products. While we are developing our expertise in this area, the case studies on pages 14-17 show what we have already achieved from the elimination of hazardous substances and improved assembly techniques, better materials selection and packaging, considering impacts during use (e.g. energy consumption) and improving end of life recyclability. We have also been working with the Environment Agency in the UK to help evaluate simplified product Life Cycle Assessment tools.
This report provides a statement of progress in key EHS performance areas for the financial year ending 31 July 2004. Data in this report are referenced against our financial year (not calendar year), except where specifically noted. EHS data are provided by our major wholly owned operations worldwide (excluding joint ventures). Recent acquisitions report their environmental performance after their first full financial year in the Group and health and safety data after their first full quarter in the Group.

In 2004, we collected environmental data from 101 facilities (97 in 2003) – all our 97 manufacturing sites and four product repair sites employing 50 or more persons. The report covers 87% of our employees on environmental issues and 94% on health and safety issues. Other smaller service centre type operations, standalone warehouses and sales offices are not included due to their minimal environmental impacts.

We collected health and safety data from all the locations providing environmental data plus all manufacturing sites that have not yet completed a full financial year in the Group, all remaining product repair and warehouse facilities regardless of size, as well as standalone office locations employing 30 or more people – 220 sites in total (117 in 2003).

The financial year ending 31 July 2004 has seen further changes to the structure of the business since the previous report. Five businesses in our Specialty Engineering division were sold during the year and have not provided EHS data in this report. Nine sites have provided environmental data for the first time in this year’s report.

Our EHS programmes are focused on improving performance across a number of key areas such as the incidence of work-related injury/illness, our use of energy and water, waste disposal and solvent emissions. We have chosen to report on these areas of performance as they represent our greatest impacts and are common across our operations and our activities as a manufacturing and technology group. Normalised data against sales for environment and man hours for health and safety are provided in the Our Performance section of this report (page 9). Normalising data helps to take into account the changing profile of the Group over time. Likewise, our targets are developed around these eco-efficiency measures and lost time incidence rates. However, we recognise that our stakeholders also expect to see absolute data, so we present both normalised and absolute performance charts side by side.

EHS data is provided by our facilities around the world through an online reporting system, aggregated into Group totals and reviewed by the Group EHS function. We improved this data collection system this year with the addition of an automatic checking function to highlight significant changes between the 2003 and 2004 data sets. Any significant changes were subsequently investigated to confirm the accuracy and quality of the data. Guidelines for businesses preparing this year’s health and safety data were also provided in 11 languages for the first time, to complement those already in place for environmental data.

The report has been prepared by the Group EHS Committee and approved by the Smiths Group Board. Following on from last years’ report, we have again asked csrnetwork to provide an independent assurance statement, which you can find on the inside back cover. A full statement is also provided on our website for the online report (see Assurance at www.smiths-group.com/ehs).
Structure and Governance Framework
Our arrangements for Corporate Governance cover the assessment of business risks and opportunities, including EHS issues. Our Internal Audit function undertakes and reports on these assessments. Further details of our governance structures can be found in the Annual Report and Accounts 2004 at www.smiths-group.com.

We have a clear line of responsibility for EHS management to ensure policies and standards are adopted by our businesses worldwide. Day-to-day responsibility and accountability for EHS management rests with the local management of our operating companies. The Director, EHS reports directly to the Director, Human Resources on EHS strategy, performance and progress against plan. The Director, Human Resources chairs the Group EHS Committee and reports to the Chief Executive, who has Board level responsibility for EHS performance.

Smiths Group Board
The Smiths Group Board regularly reviews EHS performance and EHS strategy. These issues are also reviewed by the Executive Directors of the Smiths Group Board at meetings of the Chief Executive’s Committee.

Group EHS Committee
A divisional focus on EHS performance is maintained through quarterly meetings of the Group EHS Committee. With senior representation from the divisions and corporate EHS expertise, the Committee develops policies and standards, reviews progress – including progress against group targets – and prepares the Group EHS report.

Regional EHS Co-ordinators
Our regional co-ordinator framework was further strengthened in 2004 with the appointment of a new EHS Director role in Smiths Medical.

Stakeholder Feedback
Smiths recognises the value of engaging stakeholders in developing our EHS reports during the preparation stage. We continue to use the feedback obtained from last year’s stakeholder dialogue programme to structure the content of this report. This feedback was obtained through employee workshops, meetings with over 20 key customers and investors, and electronic consultation via a dedicated website. During 2004, we extended this process to include feedback from the Environment Agency for England and Wales.

Our stakeholders have identified supply chain management and the environmental and social impacts of our products as worthy of attention. In addition we received stakeholder comment on broader areas of corporate social responsibility that were outside the scope of this EHS Report. You can find out more about our approach to wider corporate responsibility issues by visiting our website and reading our new Code of Corporate Responsibility and Business Ethics (see the Corporate Responsibility pages at www.smiths-group.com).

We welcome further feedback on any aspect of our EHS report as part of our on-going stakeholder dialogue programme (see inside front cover). An online feedback form is also provided on our EHS website for this purpose (go to Feedback Now at www.smiths-group.com/ehs).

EHS Policy Statements
Smiths has published policy statements for both environmental and health and safety issues, which can be accessed from the Download Centre at www.smiths-group.com/ehs.
New Group EHS Targets

We completed a review of our EHS programmes and developed new targets for eco-efficiency and for the first time on accident reduction.

In last years' report we disclosed that our EHS Committee would review the existing Group targets for their continuing suitability. The original reduction targets were set over the five-year time frame 2001-2006, for greenhouse gas emissions (5%), water use (10%) and waste disposal to landfill (20%) – all normalised against sales. This review was necessary due to:

- Significant change to the profile of our operating companies through acquisition (e.g. Heimann) and disposal (e.g. Polymer Seals business).
- Reductions in impacts already achieved (e.g. waste target met in 2003).
- Improvements in data quality (e.g. more accurate water data).

The Group EHS Committee completed the review at the end of 2004 and developed new three-year programmes for health and safety performance as well as extending the scope of our eco-efficiency targets to include solvent emissions.

Smiths businesses are encouraged to develop their own specific targets for accident reduction, site energy and water use, waste and solvent emissions – to support the achievement of Group EHS targets. The Group will focus its resources (audits, support and management attention) on those sites with the highest accident rates and largest environmental impacts. Regular reviews of progress towards these targets will also be undertaken by the Group EHS Committee, together with the provision of progress reports to business unit management.

<table>
<thead>
<tr>
<th>Group Target</th>
<th>Progress</th>
<th>Report Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management Systems</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Existing: All major manufacturing sites to achieve certification to ISO 14001 by the end of December 2003.</td>
<td>99% complete. By December 2003, 77 facilities – 99% of the targeted total – had achieved certification.</td>
<td>8</td>
</tr>
<tr>
<td>Existing: Undertake health and safety audits of all major operations worldwide by the end of December 2003. All major sites worldwide to achieve health and safety audit scores of at least 60% by the end of December 2003.</td>
<td>95% complete. 93 out of 98 targeted major sites had completed at least one internal health and safety audit using the AuditMaster™ system by the end of December 2003.</td>
<td>8</td>
</tr>
<tr>
<td>Accident Reduction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New: To reduce the number of accidents resulting in days away from work (lost time case incidence rate) by 20% by 2007, set against a 2004 baseline.</td>
<td>On-going. 2004 baseline for the lost time case incidence rate is 1.25 per 200,000 man hours</td>
<td>18</td>
</tr>
<tr>
<td>Eco-Efficiency</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New: To reduce site energy consumption by 5% per £ million sales by 2007 (2004 baseline).</td>
<td>On-going. 2004 base line of 191 MWh/£ million sales. Progress will also be tracked and reported against corresponding CO₂ emissions from site energy use.</td>
<td>10</td>
</tr>
<tr>
<td>New: To reduce water consumption by 12% per £ million sales by 2007 (2004 baseline).</td>
<td>On-going. 2004 base line of 471 m³/£ million sales.</td>
<td>10</td>
</tr>
<tr>
<td>New: To reduce waste to landfill by 6% per £ million sales by 2007 (2004 baseline).</td>
<td>On-going. 2004 base line of 3.6 tonnes/£ million sales.</td>
<td>11</td>
</tr>
<tr>
<td>New: To reduce VOC emissions from solvent use by 6% per £ million sales by 2007 (2004 baseline).</td>
<td>On-going. 2004 base line of 122 kg/£ million sales.</td>
<td>13</td>
</tr>
</tbody>
</table>
Management Systems

We use the ISO 14001 framework to drive forward the achievement of Group eco-efficiency targets for energy, water, waste and solvent emissions.

Four businesses achieved certification to OHSAS 18001 in 2004, bringing the total number of manufacturing sites certified in the Group to seven.

Smiths’ EHS management arrangements cover all our operations worldwide. We follow a risk-based approach in managing the significant EHS aspects of our operations by implementing environmental management systems in accordance with the ISO 14001 standard across our major manufacturing sites. This approach particularly suits the decentralised nature of our operations and is targeted at the sites with the largest environmental impacts. ISO 14001 allows individual businesses to integrate environmental thinking into their operations, acts as a framework in which to drive forward the achievement of the Group’s eco-efficiency targets (energy, water, waste and solvent emissions), facilitate legal compliance and improve risk management and product design processes.

ISO 14001 Certification

In November 2000, we set ourselves a demanding three-year goal to achieve ISO 14001 certification for all our major manufacturing sites (and hence major impacts) by the end of December 2003. All but one of our 78-targeted sites (covering 80% of our people) achieved certification by the deadline. Major manufacturing sites in new acquisitions are required to seek ISO 14001 certification within two years of joining the Group. Implementing ISO 14001 at low risk/low impact operations such as our smaller manufacturing facilities, warehouses, service centres and offices is a local management decision according to individual business needs.

Best Practice Safety Manual and Audit System


We have developed a comprehensive self-assessment questionnaire [AuditMaster™] to help our businesses undertake Health and Safety audits of their operations. The AuditMaster™ tool contains more than 300 questions on the management of health and safety, risk assessments, control and protection arrangements, and health and welfare. These questions are built on the framework provided in the global ‘best practice’ safety manual. Audit results are displayed graphically to enable businesses to identify areas for improvement and to track corrective actions. Audits are carried out across a larger number of businesses than our ISO 14001 programme, to ensure health and safety risks are managed in smaller manufacturing operations.

OHSAS 18001 Certification

Unlike ISO 14001, certification to the health and safety standard, OHSAS 18001 is not accredited. As OHSAS 18001 is not as widely recognised as ISO 14001, we have focused our safety management programme on the guidance contained in the global best practice manual and auditing performance using the AuditMaster™ tool.

For this reason, we do not have a Group goal for OHSAS 18001 but do recognise that some of our businesses do gain benefit through certification by meeting customers’ expectation in this regard – particularly our John Crane businesses serving the oil and gas sector. In 2004, Smiths Heimann in Germany, John Crane in the UK (2 sites) and South Africa achieved OHSAS 18001 certification, bringing the number of manufacturing sites certified in the Group to seven.

Existing Target
ISO 14001 Certification

All major manufacturing facilities to be certified to ISO 14001 by the end of December 2003.

Achievement

77 out of 78 targeted sites certified by end of December 2003.

ISO 14001

95%
Performance Data and Investment

This is the first year we have provided individual business unit level performance data in our online report. Go to Data Tables in the Performance section at www.smiths-group.com/ehs.

Performance Measurement
This section reports our performance on the following:

- Energy and water use.
- Waste management.
- Contaminated land.
- Climate change.
- Air emissions.
- Product stewardship.
- Health and safety.
- Enforcement action.
- Supply chain management.

We have chosen to report on these areas of performance as they represent our greatest impacts, and are common across our operations and to our activities as a manufacturing and technology group. These areas also reflect elements of environmental and sustainability reporting guidelines set by the UK’s Department of Environment, Food and Rural Affairs (DEFRA) and the Global Reporting Initiative (GRI).

Data Quality
We have developed a set of Key Performance Indicators (KPIs) to measure and drive our progress in EHS performance. Both absolute and normalised data is provided. Where normalised data is presented, we have used the Group’s financial turnover as published in the annual report and accounts for environmental performance and man-hours worked for health and safety performance. We believe that normalising the data in this way provides more meaningful interpretation of performance trends for a Group such as ours that changes continually through acquisition and divestment.

In the process of providing 2004 data, we reviewed the data provided in 2003. A new automatic checking function on our online data collection system now highlights significant changes between consecutive data sets. Corrections have been made as a result of this review, which in turn, has improved the accuracy and consistency of the data over this period. For this reason, some 2003 data have been modified for our KPIs for energy, water and waste.

We believe that the overall quality of our data has improved again this year through the enhancements we made to our online data collection system, greater focus at site level and review of data by the Group EHS Committee. We will continue our efforts to improve the quality of the information provided in future reports.

This is the first year we have also provided business unit level performance data in our full report online. Go to the Data Tables in the Our Performance section at www.smiths-group.com/ehs.

Environmental Investment
We estimate that, in the year to July 2004, we spent £4 million on our environmental programmes (£4 million in 2003). Approximately two-thirds of this covers staff costs and fees paid to consultants and legal advisers. The balance covers ISO 14001 certification fees, pollution control equipment, remediation of contaminated land and legal compliance and permit costs. Estimates of cost savings provided by our businesses, indicate that our environmental programmes saved in the order of £4.4 million in 2004. We recognise that further improvements are needed to our data collection processes at site level to be able to report robust cost savings data from our environmental programmes. We will examine how these cost estimates can be extended to our health and safety investments for inclusion in future reports.
Energy and Water Use

Energy Use
90% of our site energy is derived from electricity and natural gas, with the remainder being made up from heating oil, kerosene and LPG. In 2004, we consumed 1.83 million GJ of energy for non-transport activities at our sites, representing an increase of 4% in absolute terms compared to 2003 due to increases in our production activity and new acquisitions reporting data for the first time.

When normalised against turnover, our energy use decreased by 2% per £ million sales over this period. Improvements at site level include more efficient factory lighting, better heating controls and timers, more efficient boilers and compressed air systems, process changes, improved staff awareness and switch-off campaigns.

The review of our eco-efficiency targets in 2004 by our Group EHS Committee concluded that our improvement effort was best focused on site energy use (and corresponding CO₂ emissions) rather than transport related CO₂ impacts. This review led to the development of our new 5% site energy reduction target for the next three years, normalised against sales. We will continue to seek opportunities for energy conservation in support of this target.

Water Use
In last years’ report, we outlined the challenges we were experiencing with sourcing accurate water use data across the Group. We have made further improvements in data quality this year, with corrections being made to the data for 2003 due to over-reporting by Smiths Aerospace and John Crane (Specialty Engineering) in the USA. Total water use decreased by 9% (129,000 m³) in absolute terms from 1,377,000 m³ in 2003 (corrected data from previously reported 1,515,000 m³ to 1,248,000 m³ in 2004. Smiths Aerospace in Burnley, UK, discontinued its use of water for product testing, saving 149,000 m³ of abstracted water in 2004.

In terms of eco-efficiency, our use of water improved by 14% from 550 m³/£ million sales in 2003 (corrected from 605 m³) to 471 m³/£ million sales in 2004. A number of our businesses also reduced their use of water at source through process optimisation, water conservation measures, improved monitoring of consumption trends, repairing leaks and improved staff awareness.

New Target
Energy Consumption
To reduce site energy consumption by 5% per £ million sales by 2007 (set against a 2004 baseline of 191 MWh/£ million sales).

New Target
Water Consumption
To reduce water use by 12% per £ million sales by 2007 (set against a 2004 baseline of 471 m³/£ million sales).
Waste Management

In 2004, our operations generated 21,756 tonnes of waste for disposal, an increase of 409 tonnes or 2% on 2003 at 21,347 tonnes (corrected from 20,880 tonnes in 2003). Our first time reporters contributed 695 tonnes to the 2004 total. Hazardous waste arisings increased by 550 tonnes over the year to 1,910 tonnes in 2004 due to better classification for reporting purposes and improvements in data quality at Smiths Aerospace in the UK and Smiths Medical in the USA.

Our landfill waste reduction programme continues to deliver reductions, with 3.6 tonnes of waste disposed of by this method per £ million sales in 2004 compared to 3.9 tonnes per £ million sales in 2003. Since 2001, we have reduced the amount of waste tonnage to landfill by 50% per £ million sales. We believe that there is still scope for improvement in future years but at a less significant rate than in the past. Minimising waste at source, thus saving on raw materials, packaging and consumables, combined with income from waste recycling and reduced waste disposal costs saved the Group an estimated £3.9 million in 2004.

£1.4 million of this total originated from increases in recycling revenues, reflecting increases in world market rates for scrap metals and other materials.

The measurement and reporting of waste is in accordance with guidelines developed by DEFRA.

Smiths Aerospace Recycling Award – Germantown
Building on the environmental awards we reported last year, Smiths Aerospace in Germantown, Maryland, USA, won an Excellence in Recycling award from Montgomery County for its recycling efforts in 2004. Recycling rates increased from 26% to 51% over a 12-month period.

Recycling of Fly Ash in China
Our only coal burning facility is located in Tianjin, China (John Crane). The 130 tonnes of fly ash created per annum is now recycled into construction materials rather than landfilled.

Contaminated Land
Smiths’ property portfolio includes a number of old sites and long-standing factories. Where we identify contamination of land or groundwater, we fulfil our obligation for clean-up. We spent approximately £0.7 million in 2004 on the remediation of contaminated sites.

Spills and leakages of stored hazardous substances such as fuel oil and chemicals are minimised through engineering controls such as the use of secondary containment techniques and providing awareness training for employees. Details of spillages outside of secondary containment are provided in the Contaminated Land section under Our Performance at www.smiths-group.com/ehs.

The environmental implications of acquisitions and divestments are carefully considered and where appropriate, further due diligence is undertaken in conjunction with environmental consultants and our legal advisers.

Raw Materials Savings at Smiths Aerospace
Smiths Aerospace in Hamble, UK, introduced new machinery that cuts metal billets more accurately for aircraft structures. This reduces raw material costs by £200,000 per annum and generates less waste.

New Target
Waste Disposal to Landfill
To reduce waste disposal to landfill by 6% per £ million sales by 2007 (set against a 2004 baseline of 3.6 tonnes/£ million sales).
Greenhouse Gas Emissions
Following a review of our CO$_2$ reduction target by the Group EHS Committee, we have changed the way we report our CO$_2$ emissions. In previous years, we included road and air travel related CO$_2$ data, which in 2003, amounted to only 12% of our total emissions. These data comprised a much greater element of estimation than site energy use data (electricity and natural gas derived from bills and metering). Due to the inherent inaccuracies of the transport data and the far more significant contribution to our CO$_2$ impacts by site energy use, we now do not report transport related CO$_2$ emissions. This change brings us into line with many of our peer group companies.

We have used the GHG Indicator guidelines developed by the United Nations Environment Programme (UNEP) and DEFRA in the UK to calculate CO$_2$ emissions from the following sources:

- Energy used on premises – such as electricity, natural gas and heating oil (taken from the previous energy use section).

- Process emissions of CO$_2$ from environmental test chambers used in Aerospace and a single specialist use of sulphur hexafluoride (SF$_6$) at Smiths Heimann.

- Accidental leakage of HFCs from air conditioning and fire protection systems.

Using our revised data reporting methodology, absolute emissions of greenhouse gases increased by 3% in 2004 to 198,000 tonnes CO$_2$ (192,000 tonnes CO$_2$ in 2003) in line with our increased use of site energy. Process emissions and accidental leakage of HFCs accounted for just 0.1% of our emissions (230 tonnes CO$_2$) and of this, 143 tonnes of CO$_2$ relates to our single, specialist use of sulphur hexafluoride (SF$_6$). SF$_6$ is used by Smiths Heimann in insulating oil surrounding high voltage x-ray sources used in explosive detection systems. We estimate that 6kg of this gas was released to atmosphere in 2004. Normalised emissions of CO$_2$ decreased by 2% over this period.

We have not developed a new target for greenhouse gas emissions, as this is directly related to our site energy reduction target.

None of our sites are covered by the EU’s Emissions Trading Scheme.
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Air Emissions

We report emissions to air arising from our use of ozone depleting substances and solvents.

Ozone Depleting Substances
Like all companies of our size and type of operations, Smiths uses small quantities of ozone depleting substances such as CFCs and HCFCs. Typical applications include air conditioning and refrigeration systems such as environmental test chambers for aerospace products, process cooling and precision cleaning. Halon has been eliminated from our fire fighting systems worldwide with the exception of some North American sites where its continued use within existing sealed systems is still permitted by local legislation.

Emissions of ozone depleting substances to atmosphere occur through small losses that result from equipment maintenance, accidental leakage and the use of HCFC-141b solvent in precision cleaning of aerospace components. Absolute emissions of these substances in 2004, expressed as tonnes of CFC-11 equivalent, remained unchanged on the year before at 0.8 tonnes.

As our emissions of ozone depleting substances are not directly related to sales or manufacturing output, we only report absolute data.

Solvent Emissions
Smiths recognises that emissions of volatile organic compounds (VOCs) have environmental impact, monitors their use in operations and has now established a three year reduction target, normalised against sales. VOC emissions arise from the use of solvents in applications such as the precision cleaning and degreasing of components, in adhesive or bonding operations and in surface coatings and painting.

Absolute emissions of VOCs increased from 296 tonnes in 2003 to 324 tonnes in 2004. During this period, Smiths Aerospace (UK), Smiths Medical Mexico and Flexible Technologies in USA increased their solvent emissions by 60 tonnes as a result of production increases. 38% of the Group’s total VOC emissions originate from our four flexible hose manufacturing businesses.

Normalised emissions of VOCs also increased, by 3% in 2004 at 122 kg/£ million sales (118 kg/£ million sales in 2003).

We will continue to direct our efforts into minimising our use of solvents and associated VOC emissions through process elimination, switching to aqueous based cleaners, improved application techniques and re-distilling waste solvent for re-use.

New Target
Solvent Emissions
To reduce solvent (VOC) emissions by 6% per £ million sales by 2007 (set against a 2004 baseline of 122 kg/£ million sales).
Our Products and the Environment

Smiths’ product range is diverse. It includes avionics used in all types of aircraft, life-saving medical devices, components for the telecommunications sector and mechanical seals for the chemical and process industries. Some products contribute positively to the environment – mechanical seals technologies reduce pollution by decreasing emissions of hazardous substances from process plant and improve energy and water efficiency – and our power management systems reduce fuel consumption on aircraft. Our medical devices benefit society at large by improving people’s quality of life (such as our Cozmo insulin pump for diabetes sufferers) or by providing safer medical products (such as our needle-stick prevention devices). Our detection products provide greater security for air travellers (explosive detection and x-ray screening of baggage).

We also work to limit any potentially negative impacts our products may have on the environment, especially in managing hazardous materials and in response to customer requirements and changing regulation. Our manufacturing sites are encouraged to practice product stewardship through their ISO 14001 systems, manuals, procedures and design teams. During 2004, we developed eco-design tools, disseminated case studies to raise awareness and evaluated the use of simple LCA tools.

Eco-Design Demonstrator

We completed our first eco-design demonstrator project in 2004. Designers from four businesses, representing each of our divisions, participated in a structured programme of eco-design training, group exercises, product disassembly sessions and sharing of experiences. Products examined included Smiths Aerospace’s Integrated Standby Information System (ISIS), Smiths Detection’s Lightweight Chemical Detector (LCD), Smiths Medical’s portable resuscitator (VR1) and Kelvin Hughes’ maritime Electronic Chart Display System (ECDIS). The life cycle impacts of each product were examined in terms of the materials used, manufacturing techniques employed to assemble the product, packaging, environmental impacts during the use phase and at end-of-life disposal (including ease of disassembly for recovery and recycling).

The eco-design techniques used during the project were put to good use in identifying practical design changes. Case studies were generated from each product and disseminated across the Group alongside our new eco-design guide developed from techniques applied during the project. The success of this UK project helped launch a second one – this time involving our Smiths Medical businesses in the USA and Germany. Eco-design will help Smiths to reduce its compliance costs under WEEE/RoHS and identify further cost savings through environmental life cycle thinking applied to new product development.

Life Cycle Assessment

Some customers have told us they would like to see Life Cycle Assessment techniques applied to more of our products. This is a significant challenge given the diversity of our product range but we have taken some first steps to help us evaluate the appropriate techniques for our types of products by taking an active part in the UK Environment Agency eLCA project. Smiths Detection evaluated and provided feedback on the simplified eLCA tool and other materials developed through the project. Further details available at the eco-SMEs website (www.ecosmes.net).

Our experience to date shows that our eco-design approaches provide a more practical focus for our product design teams. However, we will continue to explore the use of LCA as a potential tool to help us design more sustainable products.

ISIS Eco-Design Case Study

Benefits:
- 33% reduction in major parts.
- Number of printed circuit boards reduced from nine to five.
- 31% reduction in the number of fasteners.
- One part casing eliminates need for silicone adhesive.
- Fully recyclable product packaging.
- More energy efficient.

During 2004, we developed eco-design guides, disseminated case studies to raise awareness and evaluated the use of simple LCA tools.
Case Study

Portable Resuscitator

VR1

Benefits:
- Weight reduced by 70% and size by 10% (single lightweight manifold replaces several aluminium components).
- Ergonomic and fully recyclable casing (snap fit).
- Reduced assembly times.
- Fully recyclable product packaging.

For further details visit the product stewardship pages on the Our Performance section on www.smiths-group.com/ehs.
Case Study

Lightweight Chemical Detector

Benefits:
- New material specification for non-military product eliminates lacquer coating on casing, which is now fully recyclable and £10 per unit cheaper (£100,000 total savings predicted).
- Lead free components.
- Longer running time through high efficiency low voltage motors.
- Fully recyclable product packaging.

For further details visit the product stewardship pages on the Our Performance section on www.smiths-group.com/ehs.
WEEE and RoHS Directives

Smiths continues to make preparations for the introduction of the Waste Electrical and Electronic Equipment (WEEE) Directive and Restriction of Hazardous Substances (RoHS) Directive in Europe. The WEEE Directive will become law within EU Member States in 2005, requiring the recovery and recycling of separately collected electronic and electrical equipment in specific product categories. Our medical devices will be covered for data registration purposes initially, although recovery and recycling targets will not apply to these devices until 2008 at the earliest. Our aerospace instruments, systems and components will not be covered but we continue to seek clarification of the exemptions for monitoring instruments such as our detection systems.

The RoHS Directive will ban the use of cadmium, mercury, lead, hexavalent chromium and certain brominated flame retardants in specific categories of electronic and electrical equipment from July 2006. These bans exclude medical devices and monitoring and control instruments until 2008 at the earliest. Products used solely for military applications will be exempt from both WEEE and RoHS.

Hazardous Materials Management

In addition to regulatory requirements, our customers are increasingly requiring more sustainable products with lower environmental impacts. Our aerospace and telecommunications customers in particular, are looking to reduce the use of hazardous substances, including those targeted by RoHS. We have made progress in a number of areas by eliminating the use of:

- Beryllium on new actuator assemblies at Smiths Aerospace in Los Angeles.
- Hexavalent chromium on actuators for the Airbus A380 Super Jumbo at Smiths Aerospace in Yakima.
- Chromium sealants by Dowty Propellers (Smiths Aerospace).
- Chrome and nickel plating of some of our interconnect products.
- Leaded solder at Specac (Specialty Engineering) for its spectroscopy equipment.

There are significant technical challenges concerning the use of lead-free solders for long life and safety critical applications such as aerospace components and systems. Leaded solders continue to be used as the main solder element for aerospace applications whilst research is undertaken into alternatives. This research is being led by Smiths Aerospace in Cheltenham, UK through their eco-design team. Work is also underway in our Aerospace business to eliminate the use of cadmium plating for actuators to be supplied to the new Boeing 7E7 aircraft.

Product take-back at Smiths Heimann

Smiths Heimann in Germany provides a take-back service for old detection equipment in order to safely handle the x-ray sources and dismantle the equipment for recycling.
We will focus our resources (audits, support and management attention) on those sites with the highest accident rates.

### Work-Related Injury/Illness

Health and safety data is collected for all our manufacturing, service centre/product repair facilities and warehouses, plus our larger office-only locations employing 30 or more people. Both work-related injury/illness data and details of enforcement action are now collected. Details of health and safety fines and penalties can be found in the Enforcement section of this report (page 19).

We now measure health and safety performance on a quarterly basis across the Group, using the US OSHA 300 standard for days away (lost time) due to work-related injury and illness per 200,000 man-hours worked. 200,000 man-hours is equivalent to 100 full time employees. In previous years, we have reported our health and safety performance separately for North America (based on OSHA requirements) and in a slightly different format for the UK, Continental Europe and Rest of World, based on employee numbers. Tracking man-hours worked, rather than just employee numbers, provides a better overall measure for our incidence rates. Using the OSHA standard has also allowed us to use common reporting definitions across the Group and facilitates comparisons with many other global companies. We also include contractor injury and illness data in our Group totals, where they are under our direct supervision and treated as if they were Smiths employees.

In 2004, our Lost Time Case Incidence Rate (i.e. the number of work-related injury/illness cases that result in days away from work per 200,000 hours worked) was 1.25 – compared to 1.76 in 2001 – a reduction of 30%. This reduction is influenced by the changing nature of the Group through acquisition and divestment as well as site level performance improvement. Our businesses and Group EHS Committee have focused on improving the reliability and accuracy of the data, in order to establish a Group-wide baseline from which to measure future progress.

Any accident is considered undesirable but for the next three-year period, Smiths businesses will be working towards achieving a 20% reduction in the lost time case incidence rate. This is the first time we have set a Group-wide accident reduction target. We will focus our resources (audits, support and management attention) on those sites with the highest accident rates and those injury categories with the highest rates of incidence such as manual handling. Quarterly data will also be provided to the Group EHS Committee and business unit management to track progress over time.

### Fatality

In September 2003, a fatality occurred at our former polymer seals business in Sweden, following an accident on an injection moulding machine. This is a serious cause of concern for the Group and a stark reminder for everyone in the Company of the importance of effective health and safety management in the workplace.

The cause of the accident was investigated by Smiths before the sale of the polymer business was completed later that month. The identified cause of the accident was communicated across the Group and an additional wide ranging review of safety arrangements carried out, including detailed machinery checks and risk assessments at all relevant sites. Overall safety management arrangements were also reviewed at this time to ensure effective mechanisms and procedures were in place to eliminate, control or manage other health and safety hazards. Businesses provided a validation letter to the Group to confirm the checks had been undertaken and corrective actions, where appropriate, were completed. A full accident investigation was also undertaken by the Swedish authorities. No enforcement action was taken against the Company.

### Graphs

**Number of Lost Time Incidents per 100 employees**

- 2004: 1.25
- 2003: 1.34
- 2002: 1.57
- 2001: 1.76

**New Target**

Accident Reduction

To reduce the number of accidents resulting in days away from work (lost time case incidence rate) by 20% by 2007, set against a 2004 baseline of 1.25.
Accident Claims
We have included for the first time an indication of the work-related injury and illness profile in the Group using Workers’ Compensation claims by category in the USA. Over half of our employees are based in North America and we believe that the Workers’ Compensation data for the USA gives a good overall representation for the Group as a whole. Manual handling (such as lifting and carrying) is the single largest cause of claims at 30% of the total. Followed by struck by/against objects (18%) and slips, trips and falls (12%). Claims following machinery injuries and occupational diseases/illnesses are relatively low at 3% each.

We have established a USA Workers’ Compensation Committee to reduce workplace accidents and corresponding compensation costs.

Enforcement Action
Two environmental enforcement actions resulted in fines in 2004 (one in 2003). An Aerospace facility in New Jersey, USA received a fine of US$16,000 for failing to report the full range of parameters in quarterly wastewater monitoring events, as required by its wastewater discharge permit. A Specialty Engineering business in Mexico received a fine of 15,000 pesos (about US$1,300) for failing to keep the correct hazardous waste inventory records.

As indicated in last year’s report, we extended our data collection systems to include details of health and safety enforcement for the first time. For the year ending 31 July 2004, there were three health and safety fines and penalties totalling US$22,000 following regulatory inspections by the Occupational Safety and Health Administration (OSHA) in the USA:

- A Specialty Engineering business in Nevada was required to revise its emergency eyewash facilities and improve its safety harness for working at height.
- A Smiths Medical business in New York was fined for having the wrong shaped guard on a band saw – corrected immediately.
- Following a detailed audit, a Specialty Engineering business in California was fined for a number of violations including deficiencies in hazard communication and other OSHA plans, personal protective equipment and machinery guarding.

All the above violations were corrected and no further enforcement action has taken place.
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Environment, Health
and Safety Report 2004

Our Performance

Supply Chain Management

Smiths Aerospace has taken the lead in the Group in developing a supply chain project aimed at working with suppliers to improve their environmental performance and the product offering to Smiths.

Our dialogue with stakeholders showed clearly the importance of managing EHS risks and opportunities in the supply chain. Smiths businesses systematically manage their supplier relationships through formal quality management systems such as ISO 9000. We also encourage our manufacturing sites to introduce some form of supplier assessment programme as part of their EHS programmes. This is generally undertaken as part of an ISO 14001 and/or ISO 9000 programme, with supplier risk assessments and improvement initiatives developed at a local level.

During 2004, 83 environmental supplier audits were completed by Smiths businesses around the world by our operations based in Brazil, Finland, Germany, India, Ireland, Italy, UK and USA. Guidance on supplier Health and Safety questionnaires is also provided in our global best practice safety manual. A number of our businesses encourage their suppliers to implement ISO 14001, although this is not mandated.

Our preparations for the forthcoming hazardous substance bans under the RoHS Directive (see page 17 of this report) have included significant supply chain activities. These range from obtaining supplier declarations of conformity with RoHS for components supplied to Smiths, to the elimination or substitution of known hazardous substances with less hazardous alternative materials.

In addition to regulatory requirements, our aerospace customers are also seeking to eliminate or reduce the use of restricted substances in products supplied to them by Smiths. These include lead, cadmium and chromium on major new programmes such as JSF/F-35, Airbus A380 and Boeing 7E7. We work with our suppliers in many cases to identify alternative materials to meet these requirements.

Questionnaires, risk assessments and audits are a step in the right direction but Smiths Aerospace in the UK is taking the lead in the Group through a partnership approach to working with suppliers to deliver further performance improvement.

Smiths Aerospace Supply Chain Project

Smiths Aerospace at Cheltenham in the UK launched a major new 12-month supply chain project in May 2004. It is aimed at its suppliers considered to have significant environmental impacts and scope for improved performance (metal finishing, electronic components, printed circuit boards and packaging). Smiths and its partners (Business Link, Envirowise/Action Energy and the University of Gloucestershire) are providing practical training and networking sessions to share ideas and experiences, establish baseline performance and data to help track progress, conduct site support visits and develop action plans. The project is focused on practical and measurable environmental improvements such as waste minimisation in operations and applying eco-design principles to products supplied to Smiths. On completion of the project, the Partners will review the effectiveness of the programme and help identify the lessons learned for wider dissemination.
Independent Assurance Statement

Scope and Objectives
Smiths Group commissioned csrnetwork to provide independent assurance on the environment, health and safety (EHS) information and data within the Smiths Group 2004 Environment, Health and Safety Report (the report). Any financial performance information contained within the report is excluded from the scope of this assurance process. The objectives were to check claims and review the arrangements for the management of EHS issues and the systems for collection of data. We were also asked to comment on the completeness and accuracy of the reporting and on the Smiths Group EHS management programme. csrnetwork took account of the principles underlying the AA1000 Assurance Standard in designing the assurance process. Our work included review of the data and claims, interviews with senior management and visits to six sites in Germany, Mexico, UK and the USA to test policy implementation, statements made in the EHS Report and data systems. These visits bring the total number of sites we have visited over the past two years to 11, totaling 30% of Group sales and 34% of Group employees, based on 2004 data. Details on the responsibilities of the Management of Smiths Group and the assurance providers, and the method for this independent assurance work can be found in an extended version of this statement at the Assurance section of the Smiths Group website (www.smiths-group.com/ehs).

Opinion

Accuracy
On the basis of the method and scope of work undertaken and the information provided to us by Smiths Group, we have found that overall the report presents an accurate description of the Group’s performance. Nothing came to our attention to suggest any systematic issues with data collection that would result in material misstatement of performance data or claims at Group level, although at most of the sites we visited, we did find some discrepancies between reported data and onsite records (which were later corrected). Smiths Group has introduced a new online data collection system during the reporting year, which has enabled increased internal validation of data and improved the quality of data being reported from specific sites. Sites should now be encouraged to include checks on data for reporting as part of local management system arrangements.

Completeness
No material issues appear to have been omitted from the scope of the report, and appropriate systems are in place for monitoring and gathering information on relevant EHS management arrangements and performance. In our statement last year, we recommended that future reports would benefit from further information being provided on the management of health and safety. This year’s report does include additional USA workers’ compensation data showing the types of accidents resulting in claims, a single worldwide measure of health and safety performance is reported, as well as information on the Group’s response to the fatality incident in Sweden. Information included in the report and on the internet relating to the Group’s work on eco-design is particularly commendable.

Recommendations for the Smiths Group EHS Management Programme and Reporting

During the year the Group EHS Committee reviewed existing EHS Group targets, and created a number of new three year targets, including lost time incident rate, based (in part) on a benchmark of relevant peer company targets and performance. This is a positive move, and signifies the Group’s commitment to adopt good practice in this area and seek continual improvement in performance. We endorse the Group’s plan to focus on sites with the highest accident rates and environmental impacts, and ongoing efforts to analyse the drivers and causes of accident claims. We recommend that performance data reviewed by the EHS Committee should be shared with divisional management teams to build ownership. Future reports would be enhanced by inclusion of information on the effects of the UK supply chain project that is now being undertaken by Smiths Aerospace at Cheltenham, and by reporting of data on health and safety related investments and costs. Continued reporting of quantified improvements relating to eco-design activities across the Group would further illustrate the good practice approach to EHS management within Smiths Group.

csr network ltd
UK February 2005

Jon Woodhead
Director