

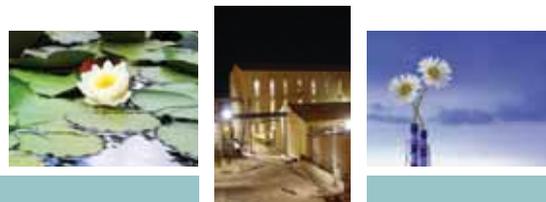


Responsible Care
OUR COMMITMENT TO SUSTAINABILITY

Performance Report 2009
South Africa

RESPONSIBLE CARE 2009





Responsible Care Pledge

The Guiding Principles are the foundation of the Responsible Care ethic. They summarise each member's commitment to health, safety and environmental responsibility in the management of processes and chemicals. When signing the Responsible Care commitment the CEO of the member company pledges to:

- Conduct our operations in a manner that minimises adverse environmental impacts and protects the health and safety of our employees and the public.
- Recognise and respond to community concerns about our operations and our chemicals.
- Promote the principle of sustainable development in the conduct of our operations and strive for continuous improvement in health, safety and environmental performance.
- Integrate health, safety and environmental considerations into our planning for new products and processes.
- Report information on relevant chemical-related health or environmental hazards promptly to appropriate authorities, employees, customers and any affected sectors of the public and recommend protective measures.
- Give advice to customers and other affected parties on the safe use, storage and transportation of our chemicals as well as the safe disposal of any residues and containers.
- Increase knowledge by conducting and/or supporting relevant research on the health, safety and environmental effects of our products, processes and waste materials.
- Co-operate with customers, authorities and affected parties to resolve problems created by the handling and disposal of chemical substances considered hazardous.
- Participate with government and others in developing regulations and standards to safeguard the community, our employees and the environment and we will endeavour to ensure that such laws are based on scientifically supported data and/or opinion.
- Promote the principles and practices of Responsible Care by sharing experiences and offering assistance to others who produce, handle, use, transport or dispose of chemicals.
- Ensure that where chemicals used or produced in our operations are controlled in terms of international conventions to which South Africa is a party, we will institute appropriate internal measures to facilitate compliance.





Index

Responsible Care Pledge	1
Statement from the Chairman of The Chemical and Allied Industries' Association	3
Message from the Chairman of the Voluntary Advisory Forum	4
Statement from the Chairman of the Responsible Care Standing Committee	6
Statement from the Executive Director of Chemical and Allied Industries' Association	8
Introduction	9
Quantative Indicators of Performance	9
Responsible Care Award	10
Health and Safety	10
Storage	13
Transportation	14
Pollution Prevention and Resource Efficiency	15
<i>Climate Change</i>	16
Community Awareness and Emergency Response	20
Third-Party Verification of Responsible Care	21
Responsible Care Signatories	22



Statement from Frank Baker, Chairman of the Chemical and Allied Industries' Association

This is the third annual Report on Responsible Care published by the CAIA. Although the percentage of companies reporting has decreased marginally in 2008 I am pleased to report that CAIA continues to make excellent progress in many areas in the implementation of Responsible Care as illustrated from data compiled from quantitative indicators of performance.

The disabling injury rate shows a continuous decline since 2003 and compares favourably with performance in other countries like the USA, EU, Canada and Japan.

Independent auditing of hauliers of dangerous goods continues to gain ground. The steady improvement demonstrated in transportation performance reflects evidence of closer control of outsourced facilities.

A healthy interaction with the community is an important aspect of the work of members, with 65% of our 136 signatories reporting that they are operating community advisory committees. 85% of signatories have established a complaints procedure and 94% have emergency response plans in place. 75% of signatories also now have a waste management programme.

CAIA is one of the few national associations that have introduced verification of Responsible Care practices by third party auditors to replace the traditional self assessment process. To date 56 business units representing 35 member companies have undertaken third party audits.

Responsible Care is an initiative that promotes continuous improvement and our commitment to sustainability. This is the new motto that has been introduced with the Responsible Care logo, and promotes this important aspect advocated in the Responsible Care Global Charter.

Responsible Care implementation contin-

ues to be promoted by regular workshops, usually three in any one year. In the last few years these have focused on the management of contractors, product stewardship, process safety, the transportation of hazardous chemicals and most recently on waste. A highly successful workshop covered the potential effect of the European Union's Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) regulations and provided guidance to members who export into Europe.

The Association is an important member and contributor to Business Unity South Africa, which is the voice of business in dealing with government. Our Executive Director, Dr Lotter, attends regular meetings with government, many by interaction through the NEDLAC process. The departments of trade and industry and the environment regard the CAIA as the voice of the industry when dealing with chemicals. The government is also supported in its Strategic Approach to International Chemicals Management, and the Globally Harmonised System of Classification and Labelling of Chemicals.

In order to improve our engagement with stakeholders and promote Responsible Care more vigorously in the media CAIA has recently engaged the services of a professional public relations agency with the focus on the provision of public relations and a comprehensive communications service.





We at CAIA are proud of the progress that has been made over the last five years and have initiated a range of initiatives to improve engagement with our stakeholders and to further improve Responsible Care performance particularly in the area of product stewardship.

I hope that you will find this report interesting and invite you to provide us with your ideas for improvement and areas that you believe should be covered in future editions of the report.

Message from Jonathan Hanks, Chairman of the Voluntary Advisory Forum.

There is reputedly a Chinese proverb – voiced in the form of a curse – “may you live in interesting times.” The current business climate is anything but dull, and the next few years promise to be more than a little interesting.

Over the past year a significant proportion of the world’s wealth (as measured by ownership of productive assets) has disappeared, US banks have been nationalised, iconic automakers are facing bankruptcy, and we have seen levels of state intervention in the economy not seen since the Great Depression. Amidst this economic turmoil, scientists are telling us that we have very little time in which to conclude a new deal on global climate change, suggesting that unless we reach an ambitious agreement in Copenhagen in December, we face the real likelihood of uncontrollable impacts. Other scientists are highlighting equally severe impacts associated with declining levels of biodiversity and with insufficient food stocks for the world’s still growing population.

These interesting times present interesting challenges and opportunities for the business sector. While responsibility for addressing social and environmental challenges rests ultimately with government, there is no doubt that business has a critical supporting role to play in addressing these challenges. Business has the resources, the entrepreneurial dynamism, the global reach and the capacity for innovation that is essential if we

are to meet the needs of present and future generations. What remains less certain is when, collectively, they will have sufficient motivation to meaningfully addressing some of these challenges.

The recent demonstrations at the G20 summit highlighted the depth of feeling that many in society have towards the business community. Underpinning much of their frustration is the desire that business be more transparent and accountable regarding its impacts on society. Accountability and transparency form the basis of socially responsible behaviour, and it is thus not surprising that regular reporting on performance is a cornerstone of the chemical industry’s Responsible Care initiative.

As one of the more visible polluters and potentially more hazardous operations, the global chemical industry has understandably been subject to increased scrutiny, placing an added expectation on the sector for more transparent behaviour as a means of building and maintaining trust. Trust is earned by providing an honest and frank account that demonstrates responsible behaviour throughout an organisation’s sphere of





influence. Frank reporting, ideally based on dialogue with relevant stakeholders, is necessary not only for building trust, but also forms an fundamental basis for informing an organisation's strategy; as the old adage holds, "you cannot manage what you do not measure."

Recognising these benefits of reporting, the Chemical and Allied Industries Association (CAIA) should be encouraged in its efforts to report publicly on the performance of its members. By providing a report such as this one, CAIA is able to realise these two important objectives: informing its strategy by reviewing the activities of its members and thus identifying the associated risks and opportunities, and seeking to build trust with its stakeholders.

As chairman of the Voluntary Advisory Forum – a group that has been established to stimulate greater public participation in the implementation of Responsible Care – I encourage you (as either an internal or external stakeholder to the chemical industry) to review the data provided in the report and to critically consider the extent to which this report contributes to these twin objectives.

Last year I listed a number of criteria against which to judge the quality of CAIA's report. I believe that these criteria still apply, and so once again invite you to consider the following questions regarding the nature of the information provided in this year's Responsible Care report:

- Does the information address those issues that are most relevant and significant to the activities of CAIA's members?
- Does it include a combination of quantitative reporting on material issues, with qualitative analysis and assessment?

- Is it understandable, using language that is accessible to the intended audience?
- Is the information seen to be reliable and accurate, and does it provide sufficient detail to be appropriate for its purpose?
- Is it balanced, presenting both positive and negative information?
- Is it timely, thus enabling useful current judgement?
- And is the information comparable, thus allowing assessment of impacts and actions over time or with those of similar organisations?

CAIA is to be complimented for its leadership in driving the Responsible Care initiative within the South African chemical industry, and for working actively with government and other stakeholders to promote and protect the interests of responsible chemical operations in South Africa and the region. There is no doubt that the industry faces some significant challenges ahead. Addressing these challenges effectively will require cooperation between the industry and all its stakeholders, based on mutual trust and dialogue informed by transparent reporting.

Ultimately, responsible management in the chemical industry depends not only on the responsibility of the industry, but also on the responsibility of its stakeholders. I encourage you, as a stakeholder, to exercise this responsibility by holding the industry to account on its performance and by contributing to continuing dialogue with the aim of identifying mutually beneficial solutions to the growing challenges we face.

"Trust is earned by providing an honest and frank account that demonstrates responsible behaviour throughout an organisation's sphere of influence."



Statement from Gary Cundill, Chairman of the Responsible Care Standing Committee

The Responsible Care Standing Committee has three main objectives:

- to sensitise CAIA and its members to public concerns which relate to the chemical industry and provide perspective on issues related to:
 - chemicals and safeguarding the public;
 - the safe transportation, storage and use of chemical products;
 - corporate responsibility as it affects chemicals and the public;
 - the interpretation of national public opinion from a local perspective;
 - risk perception.
- to identify areas for enhanced information, dialogue and improved relations between CAIA members and the public, which includes identifying public information needs.
- to establish a continuing dialogue and information exchange between CAIA and its members and key thought leaders at the national, regional and local levels.

The committee includes the CAIA Executive Director and Responsible Care Manager, and is made up of representatives from all membership categories.

The role of the committee is:

- to offer advice on emerging issues so that CAIA and its members can anticipate effectively and be proactive in formulating solutions and responses more in line with expectations of the public;
- to respond to CAIA requests for advice or assistance on issues of concern, strategies, proposed plans and other areas of activity;
- to introduce and broadly discuss topics of concern related to chemicals in society;
- to advise CAIA on how it might expand the influence of Responsible Care more effectively to users of chemicals;
- to advise CAIA on matters relating to the Responsible Care Management Practice Standards (MPSs);
- to assist CAIA in evaluating lessons learned in other jurisdictions in the implementation of Responsible Care and their possible application in the South African context;
- to advise on the effectiveness of the Responsible Care verification process and suggest possible improvements.

An important aspect of capacity building amongst CAIA members is the workshops which deal with various issues of importance to the industry. Workshops have recently been held on:

- Dangerous Goods transportation, a crucial area of risk for the industry;
- REACH, the European Union's Registration, Evaluation, Authorisation and restriction of Chemicals system, and the Globally Harmonised System (GHS) of classification and labelling of chemicals.
- Waste regulation and management in South Africa, an area where significant changes are afoot.





An industry forum to deal with process safety issues has been set up. A number of good practices and resources have already been shared, and the forum is growing. It is hoped that its influence will be significant in coming years, in this vital but often neglected area of expertise.

Liz van der Merwe, who served CAIA as Responsible Care Manager for more than five years, has now retired. Her dedication to her work and her enthusiasm are missed by all of us who've enjoyed the pleasure of work-

ing with her. Louise Lindeque has taken up her role, which has been expanded from a half-day to a full-time position.

A significant challenge remains in the need to communicate the message of Responsible Care more widely, both within the chemical and allied industries, as well as to stakeholders within the broader community. Some progress has been made in this area, after the appointment of a firm of communication consultants, but much remains to be done.

“A significant challenge remains in the need to communicate the message of Responsible Care more widely, both within the chemical and allied industries, as well as to stakeholders within the broader community.”





Statement from Dr Laurraine Lotter, Executive Director of the Chemical and Allied Industries' Association

Chemicals are encountered throughout our lives and contribute immensely to our quality of life. Many advances in areas such as health and agriculture can be directly attributed to the technological advances in chemistry.

Having said this, the chemical industry has a responsibility to ensure that chemicals are made and used safely. Introduction of cleaner and more efficient technologies results in reductions in the quantities of emissions and waste generated, as well as the use of less water and energy. To this end the Chemical and Allied Industries' Association, through Responsible Care, promotes compliance with national legislation and the various international conventions to which South Africa is party.

Implementation of Responsible Care in South Africa is undertaken within the framework of the Global Responsible Care Charter and the Global Product Strategy, which are the two main instruments of the global chemical industry's response to the Strategic Approach to International Chemicals Management (SAICM), which was adopted in 2006.

In 2009, progress with implementation of SAICM was reviewed. The data in CAIA reports to date was included in the Progress Report presented by the International Council of Chemical Associations (ICCA) to the recent review conference on SAICM.

It is clear from the increasing demands placed on the industry by governments and NGOs during the review conference on SAICM, that despite the progress we have made, there are a range of challenges that need to be addressed. The most pressing of these is the demand for more information on the hazards of chemicals in products and the phasing out of chemicals that cause significant risk to human health and the environment.

These increasing demands are reflected in our own Government's ongoing review of environmental requirements. Responsible Care sets a minimum performance standard of compliance with legislation and encourages performance to be continuously improved beyond that.

CAIA is developing additional tools to support members in the implementation of product stewardship initiatives and will in the coming year seek to introduce quantitative indicators of performance in this area. CAIA is participating in the project to implement the Waste Act and will be seeking ways to integrate Responsible Care into implementation actions for the chemical industry as a platform to deal with the product stewardship initiatives that are likely to be required in terms of legislation.

Climate change presents an increasingly significant challenge to our country and we encourage members to take steps to mainstream climate change issues into their strategic business planning processes.

The results on energy efficiency in this report reflect significant progress in achieving more energy efficient production and we urge members to review energy consumption on an ongoing basis.

The Association represents 206 companies of which the 67 manufacturers account for over 90% of chemical production in South Africa. Participation in the Responsible Care initiative is a requirement of all members. In 2008 83% of members supplied information for this report. CAIA continues to work towards the goal of 100% of signatories submitting quantitative data annually.



"CAIA continues to work towards the goal of 100% of signatories submitting quantitative data annually."



Responsible Care Performance Report 2009

INTRODUCTION

Responsible Care, the chemical industry's global voluntary initiative, is essentially a philosophy of the way in which to do business. It is the ethical way to underpin the safety, health and environmental practices of companies who have signed the Responsible Care commitment in order to do what is right rather than what is merely legally required. It guides our members to continually improve their health, safety and environmental performance in the manufacturing of products, provision of services and control of processes.

The Responsible Care Global Charter outlines the Core Principles and Fundamental Features of the programme and based on these, national associations manage the Responsible Care initiative and develop a set of Guiding Principles to which member companies make a public commitment. In so doing they contribute to the sustainable development of local communities and of society as a whole.

In South Africa, the Chemical and Allied Industries' Association (CAIA) is the custodian of Responsible Care and it is mandatory for CAIA members to subscribe and commit to Responsible Care. This initiative supports South African chemical companies as they seek to live up to the high expectations of their stakeholders by demonstrating that they are safe and responsible stewards of their products and the processes that create them. Responsible Care signatories also work with their customers and suppliers to extend their commitments to safety and good stewardship through the chemical value chain.

Responsible Care also requires signatories to measure and report on their performance. In response to a decision by the International Council of Chemical Associations (ICCA), the international authority which manages,

administers and guides Responsible Care worldwide, that third party auditing should be introduced as a means of verifying Responsible Care, CAIA has been actively pursuing the process.

Responsible Care was started in Canada in 1984 and has expanded to 53 countries around the world. In South Africa, at the end of 2007, CAIA had 136 signatories to Responsible Care. Member companies are expected to make a commitment to Responsible Care within two years of joining CAIA, by signing the Guiding Principles and pledging support to the Responsible Care initiative. This Pledge, signed by the CEO of the member company, is set out on Page 1 of this report.

QUANTITATIVE INDICATORS OF PERFORMANCE

Quantitative Indicators of Performance (QIPs) are reported annually. Note that due to changes in the total number of signatories in any year, the percentages of members reporting relative to the total number of signatories fluctuates. For 2003, 114 members (90%) submitted QIPs; 2004, 119 (88%); 2005, 116 (87%); 2006, 137 (88%) and 2007, 136 (83%). The numbers of manufacturing sites reporting were 79 (2003); 74 (2004); 82 (2005); 80 (2006) and 85 (2007).

In order to encourage transparency the Board in 2007 requested members to report on a number of indicators on a quarterly basis. The indicators are the number of fatal injuries, disabling injuries, occupational diseases and transport incidents for each quarter. The definitions used for these indicators are based on the QIP definitions. Over 70 members reported regularly in 2008 and the results of the reports are published on the CAIA website.

“Responsible Care, the chemical industry's global voluntary initiative, is essentially a philosophy of the way in which to do business.”



RESPONSIBLE CARE AWARD

Based upon improvements in performance of Responsible Care as reflected in the QIPs and a site audit, a Responsible Care Award was started in 2003. This award consists of a floating trophy and certificate for the winner and certificates for the two runners-up. In 2007 the winner was Bayer CropScience, Nigel.

Frank Baker, Chairman of CAIA, Reywin Koekemoer and Christo van der Walt of Bayer CropScience winners in 2007 with the trophy



The following sections of the Report detail the performance of member companies in terms of the Management Practice Standards listed. These Standards endeavour to bring together the best chemical industry practices of health, safety and environmental management.

- Management Commitment
- Health and Safety of Persons
- Storage, Distribution and Transportation of Chemicals
- Community Interaction
- Emergency Response
- Pollution Prevention and Resource Efficiency
- Process Safety
- Product Stewardship

Health and Safety

7 fatalities were reported in 2007. CAIA regrets these incidents and reiterates that the target for this indicator is zero.

Fatal Occupational Injuries					
	2003	2004	2005	2006	2007
Employees	6	4	0	4	3
Contractors	2	1	1	1	4
Total	8	5	1	5	7

The disabling injury incident rate for employees and contractors is shown in Figure 1 for the years 2003 to 2007, with a comparison of employee statistics with other associations around the world in Figure 2. The disabling injury incident rate for both employees and contractors has decreased most encouragingly over the period. A contractor is any person who is not an employee but is providing services to the establishment on its premises. As a further comparison to benchmark our performance the figures for the energy sector (Eskom) was 0.35 and

for multinationals operating in the chemical sector, Dow Chemicals 0.29, Bayer 0.74 and BASF 0.44. These are all 2007 figures.

A disabling injury is an injury which arises out of or during an employee's normal course of duty and the execution of work-related responsibilities and which, as a result, gives rise to temporary or permanent disablement as determined by a medical practitioner, which renders the affected person unable to carry out the work or task he/she was performing when becoming ill or injured or any of the other tasks he/she was employed for, will be classified as a disabling injury if this results in the loss of one or more days or shifts following the shift during which the incident occurred, including weekends and days off.

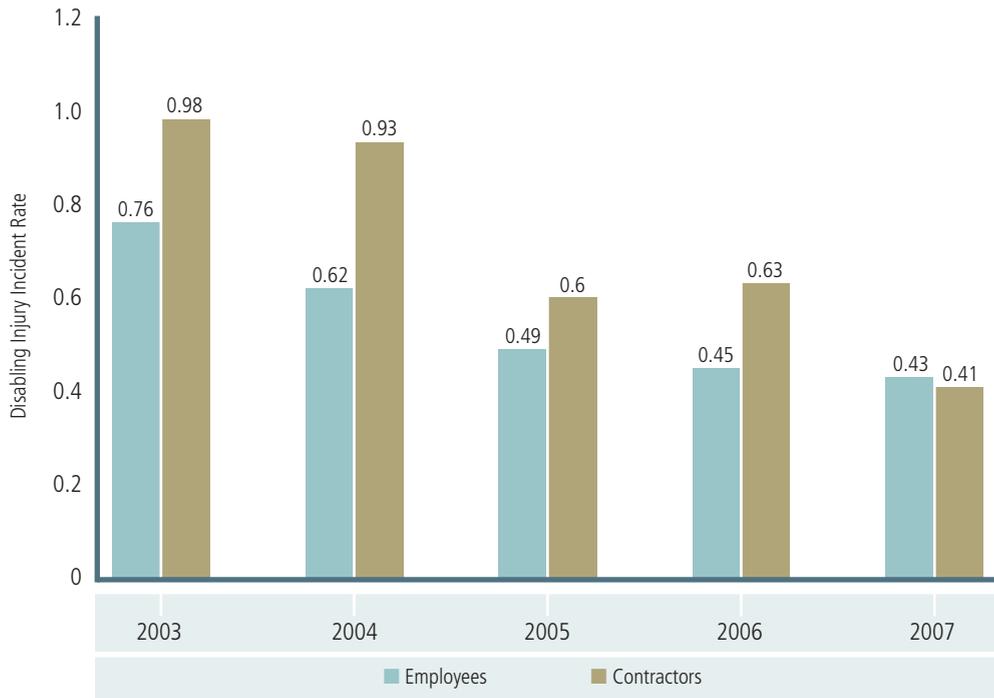
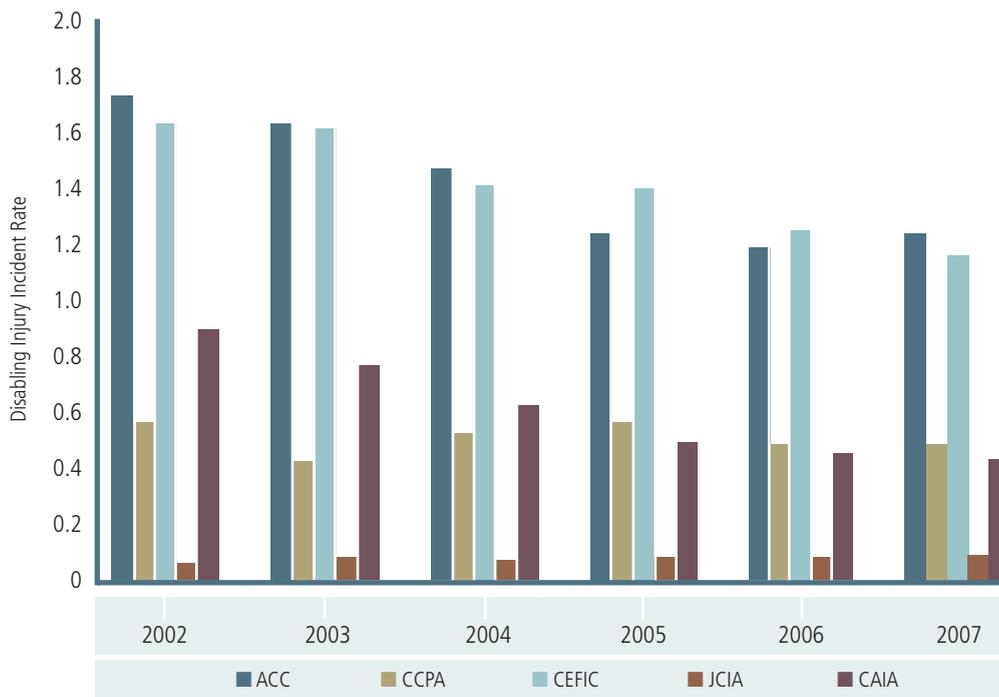


Figure 1: CAIA Members Disabling Injury Incident Rate



The disabling injury incident rate is the number of disabling injuries for every 200 000 hours worked.

Figure 2: International Comparison of Disabling Injury Incident Rate for Employees

Key

- ACC American Chemical Council
- CEFC European Chemical Industry Council
- CCPA Canadian Chemical Producers Association
- JCIA Japanese Chemical Industry Association

CEFC is the industry council for those countries in the European Union that are signatories to Responsible Care. The disabling injury rate is the average for those countries that reported in any one year. As can be seen CAIA has performed consistently well against the ACC and CEFC and compares with the CCPA but has some way to go to meet the standard of the Japanese industry.



The occupational illness incidence rate in Figure 3 continues to show improvement. Occupational Diseases is defined in terms of Schedule 3 of the Compensation for Occupational Injuries and Diseases Act No. 130 of 1993 (the COID Act).

The occupational illness incident rate is the number of illnesses reported for every 200 000 hours worked.

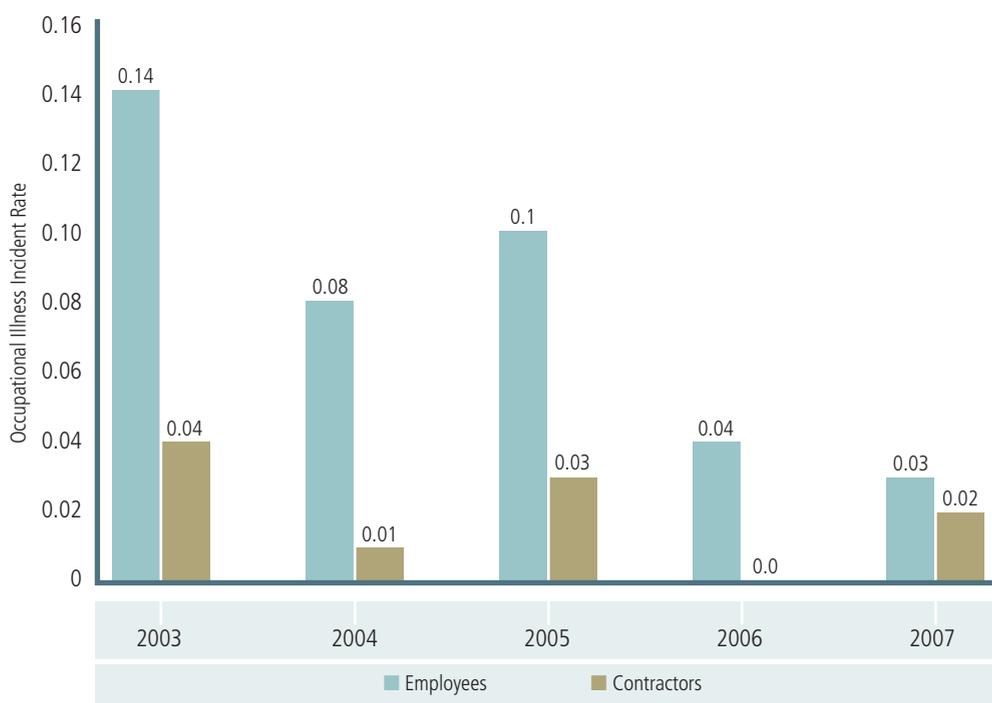


Figure 3: Occupational Illness Incidence Rate



STORAGE

Figure 4 shows the number of storage incidents for the period 2003 to 2007. In-house as defined in the QIP is where member companies control the operations and contractors is where a third party is providing the service on site. The figures for contractors in 2006 and 2007 are evidence of the need for closer control of outsourced facilities.

Incidents involving chemical release are defined as any incident involving the spillage, leakage or other escape of products, raw materials or wastes being stored in any premises, contracted Bulk Storage or Warehousing (over 200 kg hazardous or 1 ton non-hazardous).

The incident rate is the number of incidents per 100 000 tonnes stored.

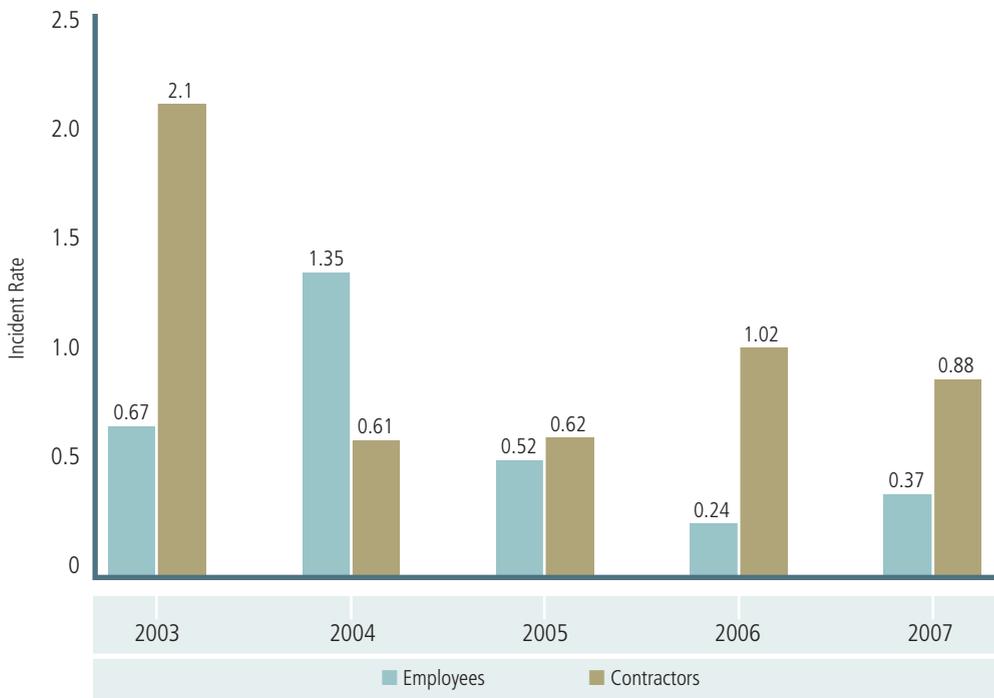


Figure 4: Incident Rate for Material Handled in Storage





TRANSPORTATION

The incident rate for 100,000 tonnes transported is shown in Figure 5. The trend upwards since 2005 for companies using their own transport is of concern whereas transport contractors are doing much better. Closer control of outsourced facilities may be a contributing factor.

An incident entails any incident involving the spillage, leakage or other escape of company products (or wastes) being transported from a factory or depot to the primary customer (or disposal site), as well as any incident involving raw materials, process chemicals or catalysts being transported from the point at which the company takes ownership of them and their arrival at the factory site (more than 200 kg hazardous or 1 tonne non-hazardous).

This also includes incidents causing public disruption, defined as any incident involving company products or other materials being transported as described above, not involving chemical release but causing public disruption due to the danger, or perceived danger, of a chemical release, resulting in evacuation of the public, road closure, restriction of public activity or other significant precautionary measures having to be taken. This includes any incident which involves the attendance of the local Emergency Services as well as any incident which attracts adverse local or national media attention on environmental, health or safety grounds.

“In addition, thirty four hauliers had become signatories to Responsible Care.”

The biggest contributor to transportation incidents is road transportation as opposed to rail (95 in total for road and 5 for rail in 2007). To address this state of affairs, CAIA introduced in 2003 the directive that chemical companies using road hauliers to transport chemicals should ensure that the hauliers be Responsible Care signatories and comply with the requirements of the Safety and Quality Assessment System (SQAS). This system, developed by CEFIC for the European Union and modified to suit South African conditions and legislation, has been assessed by CAIA to be acceptable as Responsible Care verification for haulier members in South Africa. Since the launch of SQAS in 2003, until the end of 2007, one hundred and twenty five hauliers had been audited, of which ninety seven attained preferred supplier status (meeting 90% of the criteria) and twenty eight provisional supplier status (meeting 60% of the criteria). In addition, thirty four hauliers had become signatories to Responsible Care.

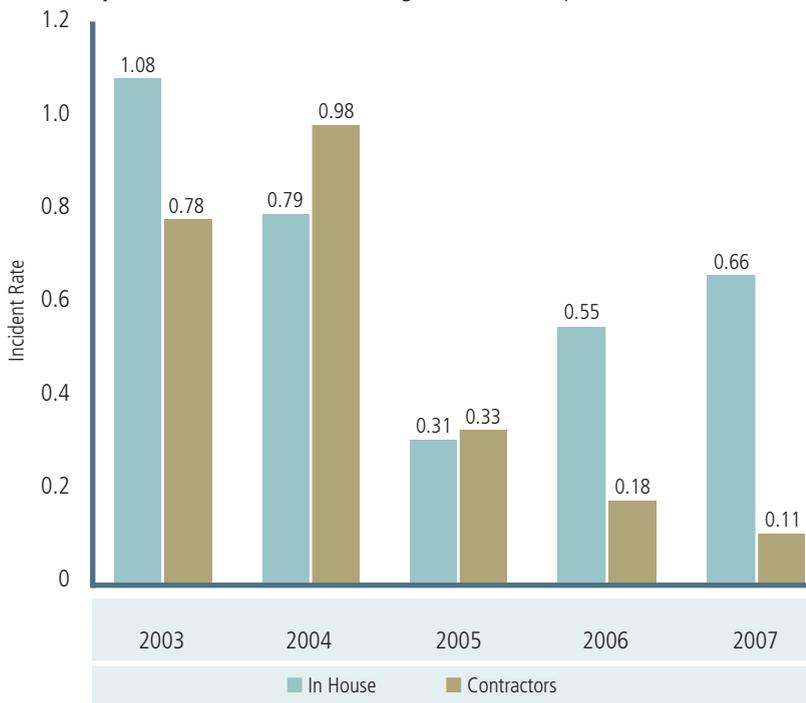


Figure 5: Incident Rate for Material Transported



POLLUTION PREVENTION AND RESOURCE EFFICIENCY

The percentage of sites reporting on effluent, air emissions, energy and water usage, and hazardous waste generated is recorded in Figure 6 for the period 2003-2007. A high percentage of sites report on energy and water use. This could be related to the significant increase in cost associated with these two commodities and conservation initiatives promoted by government. Companies are focusing more on waste management as a result of the pending implementation of the new waste act. A significant number of members have therefore reported on the quantity of hazardous waste generated. Effluent reporting is on a par with 2006 but air emissions reporting has declined.

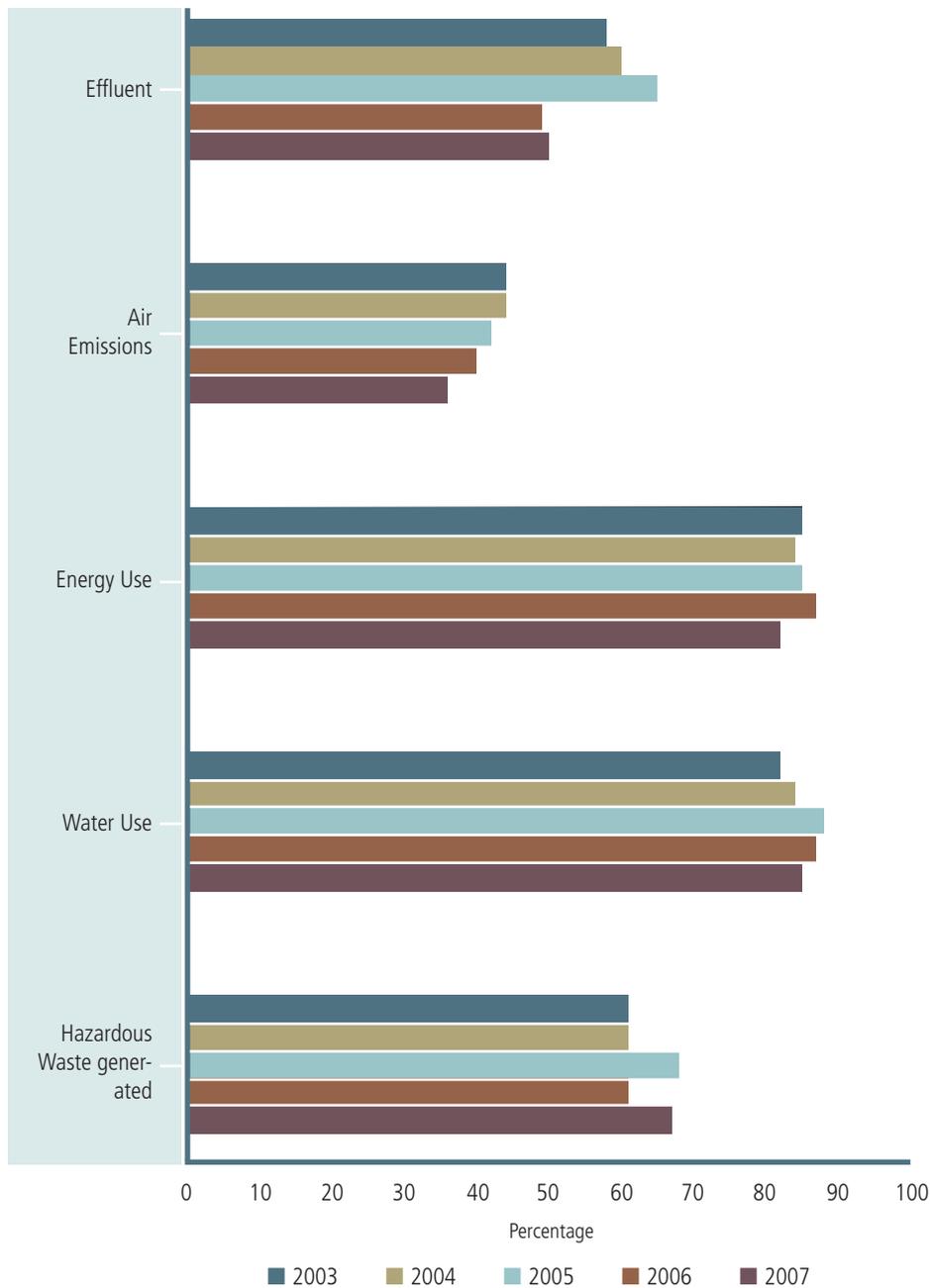


Figure 6: Percentage of Sites Reporting on Hazardous Waste, Water, Energy Air Emissions and Effluent



Climate Change

As a relatively intensive user of energy, the chemical industry contributes to the generation of greenhouse gases through its consumption of various energy sources. CAIA is a signatory to the Energy Efficiency Accord and has been collecting energy consumption data from Responsible Care signatories since 2003. The energy intensity of production based on electricity use has reduced significantly since data began to be collected and energy efficiency has improved by 13% over this period. This is reflected in Figure 7 for electricity usage per tonne of production. The data from those manufacturing companies that submitted electricity usage for all five years was used to ensure comparability.

Based on the actual electricity reduction over the period 2003 to 2007 a reduction of 71420 tonnes of carbon dioxide has been achieved which in turn means a reduction in carbon intensity of production from 0.252 to 0.220 tonnes of carbon emission/tonne of production.

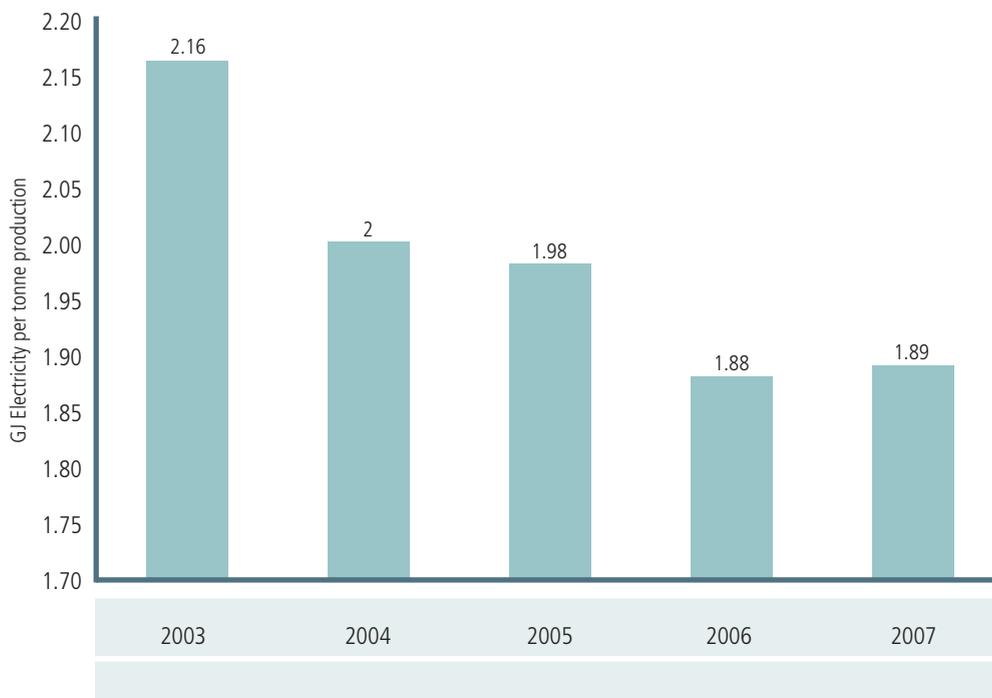


Figure 7: Electricity Usage

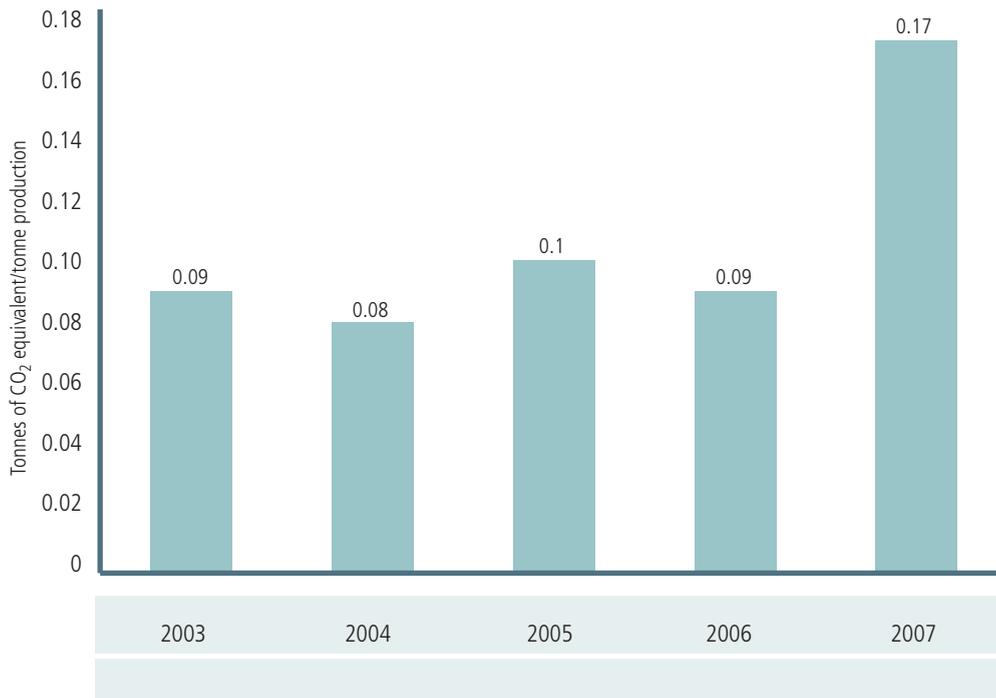


Figure 8: Greenhouse Gas Emissions

Emissions of greenhouse gases per tonnes of production from 2003 are shown in Figure 8. Using substance specific equivalence factors, non-carbon dioxide emissions are converted to carbon dioxide equivalents. One tonne of nitrous oxide is equivalent in its global warming potential to the release of 310 tonnes of carbon dioxide. In 2007, 99.86% of greenhouse gas emissions were carbon dioxide (CO₂) emissions and 0.14% nitrous oxide (N₂O) emissions. These emissions are composed of emissions from chemical production only and exclude those from synthetic fuel production and steam stations. The data from those manufacturing companies which reported for all five years was used to ensure comparability. The increase in 2007 is ascribed to better and additional reporting on carbon dioxide levels.



The new enclosed ground flare at the Sasol Polymers ethylene plant in Sasolburg constructed to replace the open flare, the noise from which has been the subject of complaints by the nearby community.





Other air emissions arising from chemical production are shown in Figure 9 for sulphur dioxide (SO₂), carbon monoxide (CO) and nitrogen oxides (NO_x).

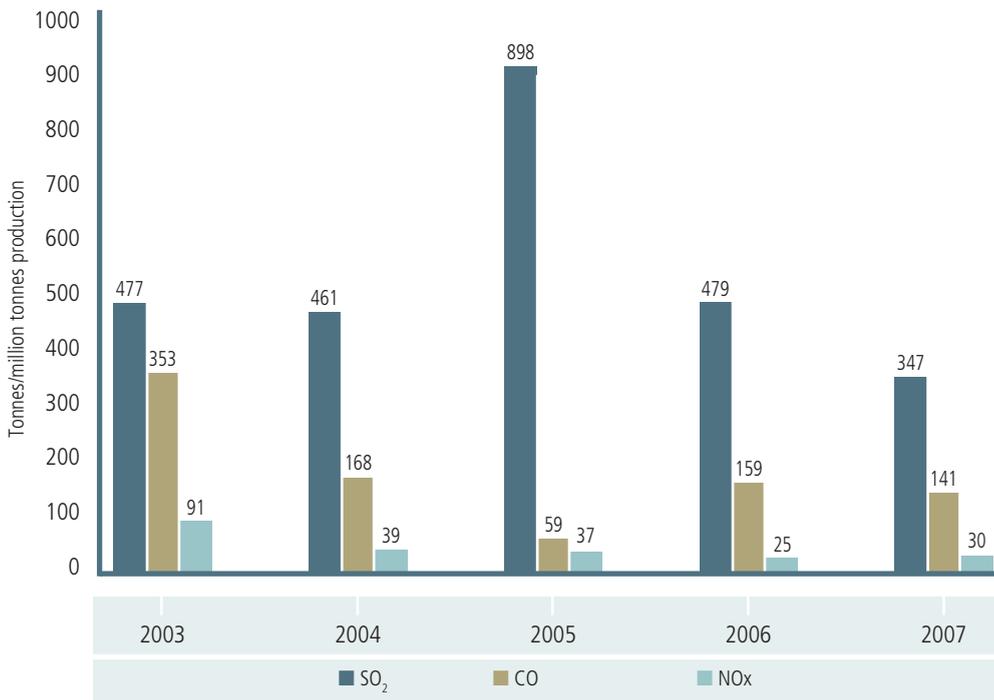


Figure 9: Air Emissions

The Chemical Oxygen Demand (COD) provides an indication of organic load discharged in liquid effluent into the municipal sewer, rivers, dams and the ocean. The COD per tonnes of production is shown in Figure 10. In 2006 a large member company with a significant effluent discharge to ocean shutdown its operation. This is the reason for the significant decrease in CODs for that year.

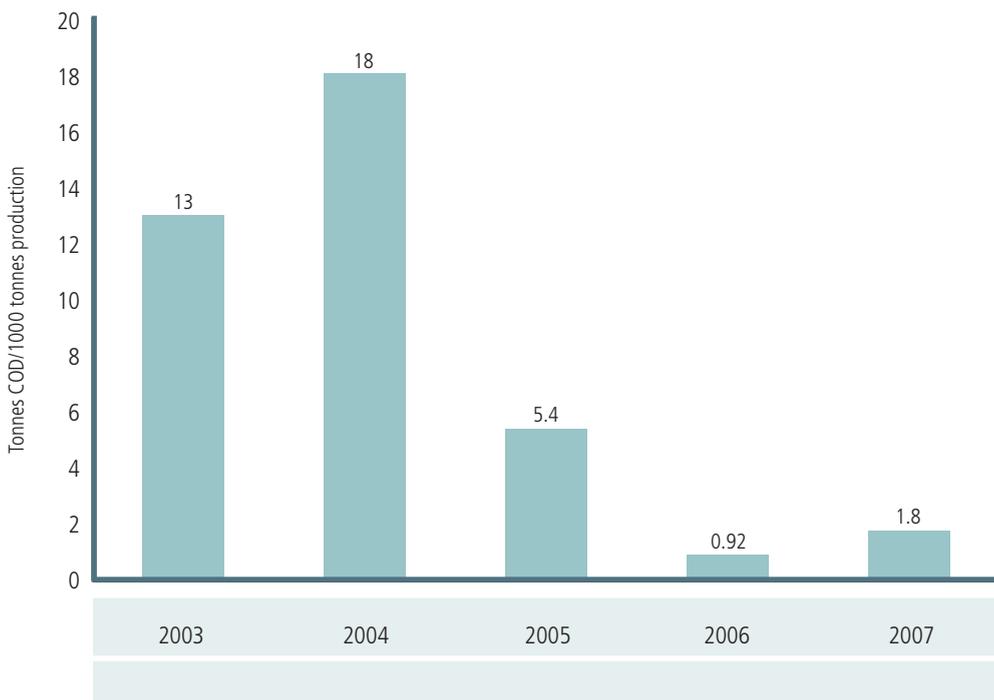


Figure 10: Chemical Oxygen Demand



Total water usage, except steam stations, is shown in Figure 11. Data is provided from 2004 when reporting of process water was introduced and is based on those manufacturing companies which reported for all four years to once again ensure comparability.

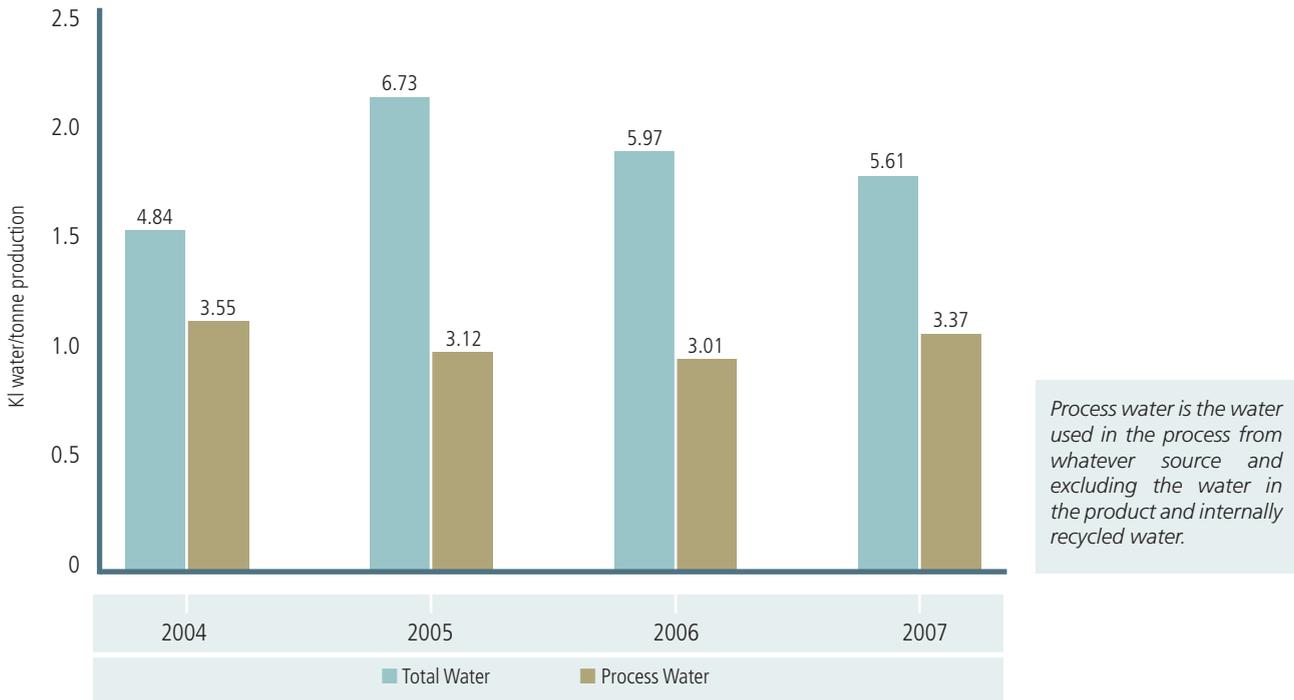


Figure 11: Water Usage

Total waste and hazardous waste are reported in Figure 12. The reversion to levels below those reported for hazardous waste in 2004 is a sign that members have been proactive in minimising this type of waste.

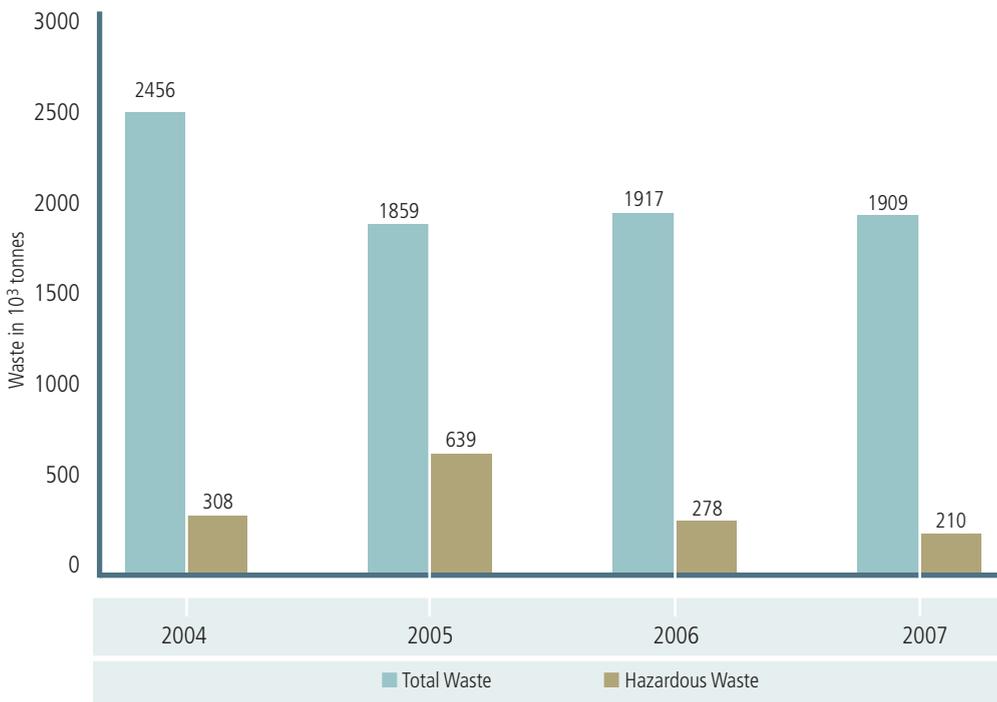


Figure 12: Waste Generated



COMMUNITY AWARENESS AND EMERGENCY RESPONSE

The percentage of sites reporting on various Community Awareness and Emergency Response (CAER) initiatives for the five year period is shown in Figure 13. Although the level of reporting continues to be high in most cases a noticeable decline in the parameters measured is evident. A resurgence of commitment is required. This will be encouraged in the first instance by publicising site visits and participation of community committees with activities of member companies.

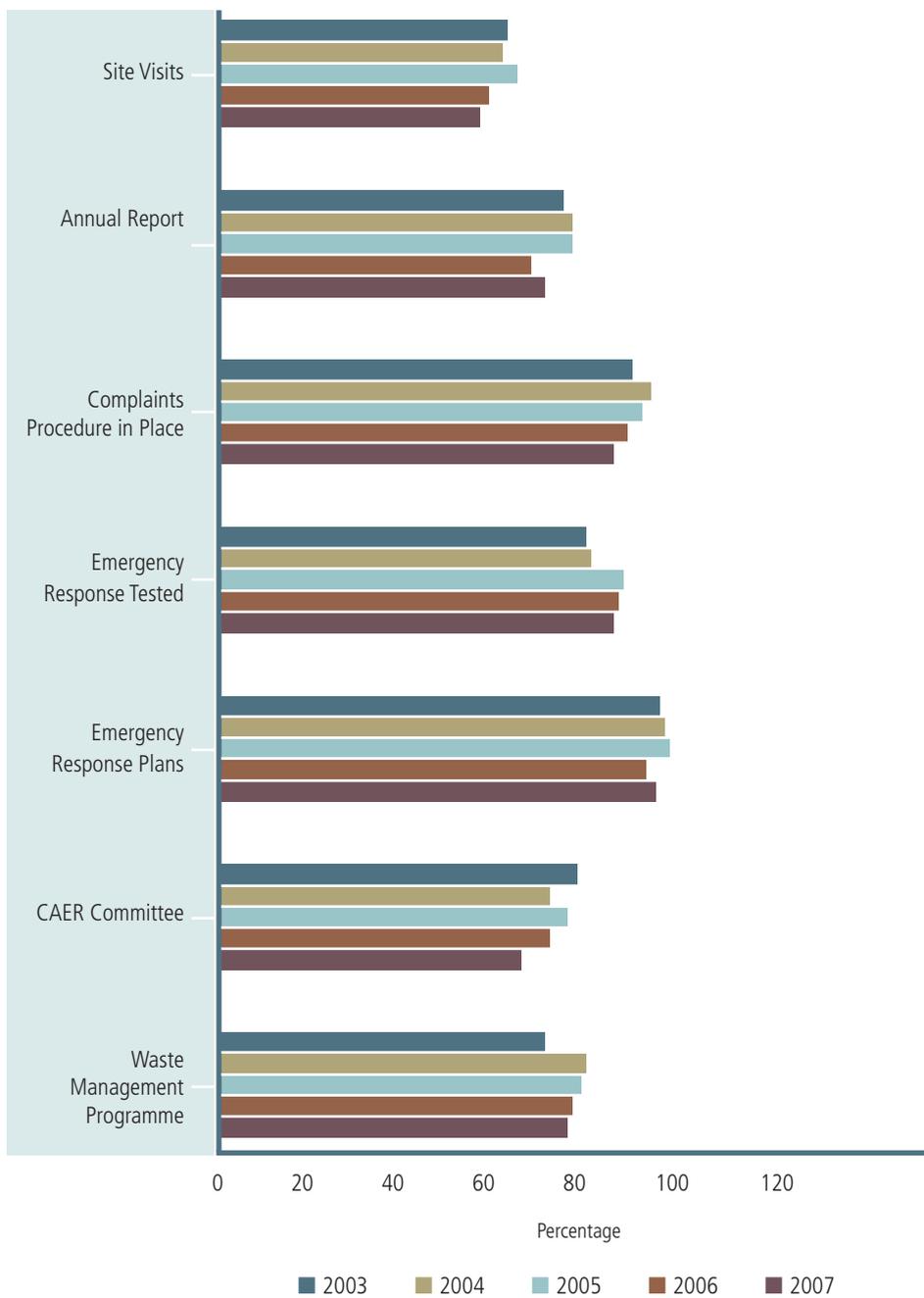
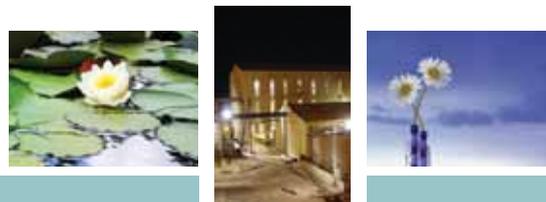


Figure 13: Percentage of Sites reporting on CAER Structures



Third Party Verification of Responsible Care

In line with the recommendations of the International Council of Chemical Associations (ICCA) and the Responsible Care Global Charter, third party verification of Responsible Care is mandatory for all CAIA members who have been Responsible Care signatories for more than two years. Audit protocols based on Responsible Care Management Practice Standards are used by members to assist them in preparation for and in the execution of third party verification of their Responsible Care implementation status.

To date 56 business units representing 35 member companies have undertaken third party audits. As mentioned previously, the Safety Quality Assessment System, now termed SQAS SA, is accepted as third party verification of Responsible Care for haulier members.

A list of verified companies is available on the CAIA website. Depending on the outcome of the verification audit, signatory companies are grouped into three categories.

1. Significant Responsible Care practices in place.
2. Considerable Responsible Care practices in place.
3. Developing Responsible Care practices in place.

Signatories are required to undertake a verification audit every two years. Independent CAIA approved auditors that are competent in health, safety and environmental auditing are used for the Responsible Care verification audits. Twenty three auditors, who have attended a training course in Responsible Care, have been approved to undertake these audits.

To support smaller enterprises with the challenges of the third party verification process, a consultant was appointed to customise the audit protocols for their operations. Non-applicable sections of the protocol were excluded for such enterprises resulting in the verification process being less time consuming and more affordable. Six customised audit protocols have been completed and seven more are under development.

The overlap between Responsible Care and other management systems such as ISO 14001 and OHSAS 18001, to which many members subscribe, is recognised. Audit protocols include compatibility matrices between Responsible Care and the other management systems. This facilitates the simultaneous auditing of these management systems and Responsible Care resulting in a reduction of auditing time and cost.





Responsible Care Signatories

The following signatories responded to the Quantitative Indicators of Performance questionnaire in the period 2003-2007.

777 Logistics (Pty) Ltd	Fuelogic (Pty) Ltd
AECI Ltd *	Gan Trans
African Explosives Ltd*	Gazelle Testing Services
Agfa (Pty) Ltd	Geochem (Pty) Ltd
Air Products SA (Pty) Ltd	Gold Reef (Pty) Ltd
Akulu Marchon (Pty) Ltd Wynberg*	Heartland Leasing*
Akulu Marchon Mobeni	Huntsman -Tioxide SA (Pty) Ltd
Algorax (Pty) Ltd	Iconic Oil
Anchor Chemicals*	Idwala Sales & Distribution (Pty) Ltd*
Arch Water Products SA*	Illovo Sugar Ltd
Arch Wood Protection SA*	Impala Platinum Ltd – Refineries*
Arrow Bulk Carriers	Improchem (Pty) Ltd*
Associated Chemical Enterprises (Pty) Ltd*	Industrial Fire & Rescue Training
BASF	Industrial Oleochemical Products
Bayer Crop Science*	Industrial Urethanes
Bonchem (Pty) Ltd t/a (A division of Synthachem	Intertek Testing Services (Caleb Brett)*
Technical Services (Pty) Ltd)	Island View Storage
Buckman Laboratories (Pty) Ltd	Karbochem (Newcastle and Sasolburg)*
Bulk Mining Explosives*	Lake International Technologies (Pty) Ltd *
Bulk Trans	Lanxess (Pty) Ltd (Isithebe and Merebank*)
CH Chemicals	Lanxess Mining (Pty) Ltd*
CHC Elastogran (Pty) Ltd	Leschaco
Cargo Carriers (Pty) Ltd	Liquid Fuel Supplies t/a Fuel-Tec
Central African Road Services	Lucite International (now Perspex SA)*
Central Logistics	M3 Carriers
Chemfit Industrial Holdings (Pty) Ltd*	Manline (Pty) Ltd
Chemfit Fine Chemicals (Pty) Ltd*	Membrey Transport
Chemical Initiatives (Pty) Ltd*	Merck (Pty) Ltd
Chemical Initiatives Botswana	Merisol RSA*
ChemiPhos (Pty) Ltd*	National Starch & Chemical (Pty) Ltd
Chemquest (Pty) Ltd	NCP Chlorchem (Pty) Ltd*
Chemserve Perlite	NCS Resins
Chemserve Systems*	Omnia Fertilizers*
Clariant SA	Omnia Specialities
Dasa Carriers	Pelichem
Degussa Peroxide Africa (Pty) Ltd	Performance Masterbatch
Dow Agrosciences*	Perspex SA*
Dow Plastics (now Safripol)*	Plaaskem
Drizit Environmental	Plastamid
Drumal Services	Protank
Duco Speciality Coatings	Protea Industrial Chemicals (Cape, Inland and Kwa Zulu Natal)
Dulux	Protea Mining Chemicals,
Enviroserve (Pty) Ltd *	Protea Speciality Chemicals
Fine Chemicals Corporation	Protea Polymers
Freight Dynamics	Protea Bulk Resources
Freight Haul	Rapid Spill Response



Reef Tankers
Rennies Distribution Services Denver
Warehousing*
Rennies Distribution Services Durban
Resinkem (Pty) Ltd
Rohm & Haas
RSA Tankers (t/a United Bulk)
SA Bioproducts (Pty) Ltd
SA Fine Industrial Chemicals
SA Paper Chemicals (Pty) Ltd
Safripol (Pty) Ltd
Safcor Panalpina
Sancryl Chemicals
Sasol Chemical Industries *
Sasol Infracem*
Sasol Nitro (Explosives & Fertilizers)*
Sasol Oil
Sasol Polymers*
Sasol Solvents*
Sasol Synthetic Fuels*
Sasol Wax (Sasolburg & Durban)*
Senmin (Pty) Ltd*
Servochem (Pty) Ltd
SGS Emoyeni
Shell Chemicals
Sika (Pty) Ltd
Speciality Minerals SA*
Spill Response Team
Thuthukani Warehousing & Distribution
Transnet Freight Rail
Unitrans Freight Fuel & Chemicals (Pty) Ltd
Value Logistics/Freightpak (Pty) Ltd
Vopak Terminals
Witon Chemicals
Xtreme Projects
Yellow Jacket (Pty) Ltd

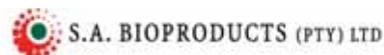
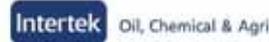


*Responsible Care verification complete

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Looking out for each other

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Responsible Care
OUR COMMITMENT TO SUSTAINABILITY