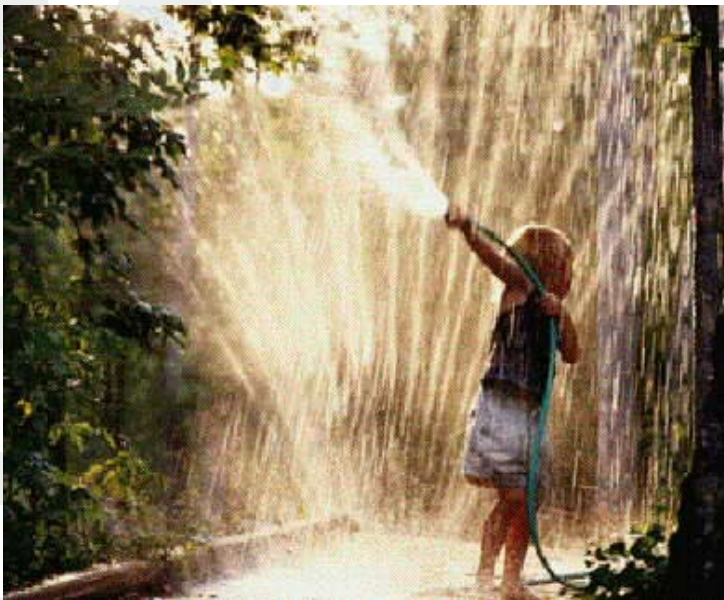


Environment, Health and Safety Bradford and Grimsby



Highlights

- Chemical Industry Association awards for Bradford and Grimsby
- New reverse osmosis process enabling increased use of borehole water
- 11% reduction in effluent
- 38% reduction in the amount of unused waste
- 22% increase in behavioural safety observations
- 25% reduction in total accidents
- Platinum status in Yorkshire and Humberside Environmental Index
- Appointment of Climate Change Champion

2008

Executive Summary

I am pleased to introduce to you our Environment Health and Safety (EHS) report for 2008.

From a business point it is pleasing to report a year of continuous improvement in a wide range of our business activities at Bradford and Grimsby. It has been a tough year, where the cost of energy and raw materials reached unprecedented levels, and the global economic downturn started to take affect. There was lessening demand for our products used in extractives and mining industries, however demand for products sold into the municipal water treatment market remained strong.

Even though we have had a difficult business year, we have stayed focussed on and committed to our EHS performance. In February 2008, we embarked on a journey to challenge our way of thinking about personal safety, with over 850 employees at Bradford and Grimsby attending a safety workshop. It was encouraging to see every member of our team recognising their individual and collective responsibility for carrying out jobs in a safe, healthy and environmentally responsible way. We have also taken positive steps designed to raise awareness of process safety, the role of leadership and the development of appropriate performance indicators.

We were again delighted to receive safety awards from the Chemical Industries Association and to be recognised as one of the top performing organisations in the Yorkshire and Humberside Environmental Index. For the first time we received Platinum status and were recognised as a Climate Change Champion.

During 2008, Lean manufacturing has played a major part in identifying opportunities and has delivered successful waste and effluent reduction projects.

This report highlights our EHS and local community performance as well as a carbon footprint assessment over 2008 and outlines planned improvements for 2009.

We remain committed to continuous improvement in environment, health and safety performance.

Mike McFarlane
Site Director



Environment, Health and Safety Policy

Ciba is committed to:

Integrating EHS management into business processes and strategic planning

Global compliance with laws, regulation, international treaties and conventions

Minimising, managing and communicating all risks relating to its products and operations; participating in Responsible Care programmes in all major regions

Maintaining a high level of awareness, motivation, training and professionalism in EHS for all employees

Continuously improving EHS performance through goal-setting and measurement

Considering EHS performance as a key element in selecting suppliers, distributors and contractors

Environmental performance

Releases to Air

By optimising our production processes we aim to minimise atmospheric releases, and where possible recycle or treat gaseous emissions to reduce impact on the environment.

Over 2008:

- Volatile Organic Compounds (VOCs) (expressed as carbon) were reduced by 5.3% to 72 tonnes
- Nitrogen dioxide was reduced by 21.7% to 148 tonnes
- Sulphur dioxide remained the same at 13 tonnes
- Atmospheric emission monitoring results were 99.9% compliant with permit requirements. Breaches of two emission limits were recorded; these were investigated and the findings were reported to the regulators.

Comprehensive monitoring regimes are carried out which enable us to quantify emissions to air. By using Air Dispersing Modelling Systems we can confirm that atmospheric emissions from our operations are not harming the surrounding environment.

Water (including waste water)

Two types of water are used on the Bradford site; borehole and town mains water. Borehole water is not suitable to use in all applications on site due to quality considerations. The Grimsby site is supplied solely with town mains water.

Over 2008:

- Bradford's borehole water consumption increased by 12.5% to 217,379 m³
- Bradford's town mains water consumption increased by 1.8% to 573,120 m³
- Grimsby's town mains water consumption reduced slightly by 0.6% to 43,558 m³
- Total water consumption at both sites rose by 4.2% to 834,057 m³

In September a reverse osmosis process was commissioned to treat borehole water on the Bradford site. This treated water has replaced town mains water supply to our steam raising boilers. In 2009, this process will be further optimised to increase its output and minimise its waste stream.

A review of water consumption during the year identified losses from cooling systems at Bradford, which we have now rectified. Consequently, the quantity of the water used in these systems will be less in 2009.

There was no KPI for water consumption in 2008, but it was closely monitored using extensive water metering to drive water minimisation projects.

A number of water saving projects have been identified for 2009, these include; increasing the return of condensate to the steam raising boilers, and recycling wastewater from production processes into cooling water systems.

Ciba site at Bradford



Effluent

Waste water undergoes various treatment stages at our Bradford site prior to being discharged as trade effluent to the sewer. The waste water from our Grimsby site is transported to Bradford for treatment and disposal.

Over 2008:

- Effluent discharges were 100% compliant with IPPC permit requirements.
- Trade effluent requirements were over 99% compliant. Breaches of two discharge limits were recorded; these were investigated and the findings reported to the regulators.
- Effluent generation was reduced by 11.6% to 237,894 m³
- Chemical oxygen demand (COD) of our effluent discharge increased by 4.4% to 331 tonnes.

Improvements in production processes have resulted in a continued reduction of effluent volume. As a consequence, we have reviewed and optimised the on-site effluent treatment operations. Although this has resulted in a planned increase in COD, it has reduced the usage of effluent treatment chemicals and the generation of effluent plant waste; thus leading to an overall positive environmental effect.

In 2009 a new water tank will be installed at Grimsby to hold clean surface water which will be discharged locally. This will reduce the amount of effluent transported to Bradford for treatment.

Waste (excluding water waste)

Where possible, waste is recycled, reused or recovered, either on-site or at treatment facilities. Where this is not possible, the waste is sent off-site for disposal.

Over 2008:

- Waste sent off-site for disposal remained similar at 12,751 tonnes
- 3,202 tonnes were classified as hazardous, of which 2,403 tonnes were recycled, reused or recovered.
- 9,549 were classified as non-hazardous, of which 4,429 tonnes were recycled, 3,100 tonnes were landfill and 2,020 tonnes were treated prior to disposal at other specialised facilities.

Our figures exclude construction wastes as they are not associated to production processes.

For 2008, we set a KPI of a 6% reduction in waste sent off-site per tonne of product. We actually saw an increase of 7%. This increase was caused by a period of prolonged, abnormal shutdown of one of our combined heat and power (CHP) plants for essential maintenance. This prevented the on-site burning of 640 tonnes of methanol and the need to send it off-site for disposal at a waste recovery facility. Consequently, this prevented us from meeting our waste reduction target.

Over the past few years, Ciba has monitored and set targets for minimising waste generation. At the beginning of 2007, Ciba set a global four year target for a 10% reduction in unused waste (not recycled or recovered). Building on the success of 2007, a further reduction in unused waste of 38% has been achieved in 2008. This great success, which reduces the burden on landfill sites, has been delivered through the increased use of off-site composting facilities.



Customer's water treatment facility

Energy

At Bradford, two CHP plants convert natural gas and recycled methanol into electricity and steam. The CHP plants produce enough electricity to meet all of the site's requirements, as well as enabling a small excess to be exported to the grid and a neighbouring company. With conversion rates of over 80%, the CHP plants are twice as efficient as conventional power stations. The use of methanol, which is generated on-site as a by-product, reduces gas usage and the depletion of this important natural resource.

The Grimsby site is supplied solely with fuels imported onto site as it does not have a CHP plant.

Over 2008:

- Energy consumption at Bradford and Grimsby increased by 0.4% to 1,791,976 gigajoules
- At the Bradford site 144,714 gigajoules of electricity were exported to the national grid, 104,806 gigajoules were imported onto site and 111,677 gigajoules were generated from methanol for on-site use.

During the year we saw an increase of 7% in the energy consumption per tonne of product. Causes included the need to shutdown one of our CHP plants for a prolonged period as well as the inability to recycle a significant quantity of energy due to the breakdown of a heat recovery system.

We have continued to roll out our Lean manufacturing programme across the Bradford and Grimsby sites. This has included four intensive Kaizen Blitz sessions, where dedicated teams focussed on reducing the use of utilities in specific production areas on-site.

These teams have identified numerous initiatives and over 40 energy saving projects are planned or underway. These include; replacing the pumps on the cooling towers to ensure they are more efficient, recycling warm air from the top of buildings to reduce heat requirement on product driers and introducing more efficient air compressors. These projects will enable us to reduce our carbon footprint and help tackle climate change.

In addition to these projects, an energy team has been formed to change the habits and attitudes towards energy, encourage new ideas for reducing energy consumption and implement processes for sustainability. Their progress and successes are publicised through our internal monthly newsletter.

All carbon footprint improvement initiatives on the Bradford & Grimsby sites are now coordinated by the Lean Manufacturing Manager.

Climate Change and Carbon Footprint

Ciba are participants of the Chemical Industries Association's (CIA) Climate Change Agreement, as well as being permitted under the EU Emissions Trading Scheme.

We also acknowledge the importance of our carbon footprint and have carried out a basic assessment for Bradford and Grimsby. This takes into account energies imported and used on site as well as energy exported to the national grid and to a neighbouring company. It does not include the carbon footprint of the raw materials brought to our sites or the distribution of finished product around the world. The methodology that we used is described in the Carbon Trust's guidance booklet 'Carbon footprinting – an introduction for organisations'.

A carbon footprint figure of 100,661 tonnes, expressed as carbon dioxide equivalents (CO₂e) was calculated for 2008. This figure is less than that reported in 2007, due to the use of a more accurate method for its calculation. In order to define a global guide for Ciba, a review of the methodology is currently being carried out and will be used to report carbon footprint in future years.

The Bradford and Grimsby sites support Business in the Community's commitment to tackling climate change through their Environmental Index benchmarking initiative. In 2008 we were one of the top six leading participating organisations in the Yorkshire and Humberside region, and were awarded Platinum Status as well as being recognised as Climate Change champions.



Environmental Index Awards

Safety Performance

Effective EHS performance is critical to the success of our business. In 2008 we took a series of positive steps to raise awareness of individual responsibility and the potential impact that has on personal and process safety.

Over 2008:

- Behavioural safety observations increased by 22%
- Total accidents were reduced by 25%
- The 'Permit to Work' team received an internal recognition award, for the contribution they made in the improvement to safe systems of work.

Unfortunately, we did see the injury of two colleagues resulting in lost time. We have taken steps to understand why these injuries happened and what we need to do to prevent them reoccurring. We can look back and see that since the launch of 'Safety is our Future' in 2000, we have achieved a 53% reduction in lost time accidents and reportable incidents.

We continued to build on this success and our Safety Awareness for Everyone (SAFE) programme has seen further developments through 2008. As well as continuing the programme of SAFE observations and senior manager safety tours, all employees and term contractors attended a full day safety workshop. The workshop contents included a back to basics approach to safety, skills for improving communication and individual responsibility. These elements were seen as key to enabling the next step change in EHS performance. Findings and feedback from the workshops will form the foundation for EHS initiatives and targets in 2009 and beyond.

Costs for Environment, Health and Safety

We are committed to providing control equipment, training for personnel and investment in our production processes to ensure we deliver a high level of operational EHS performance.

During the Safety, Energy and Environmental Protection (SEEP) database reporting period (October 2007 to September 2008), the operational costs for health and safety services were £1 million. During the same period, the operational costs for monitoring, controlling and treating emissions to air, land and water were £2.3 million.

Capital expenditure totalled £1.4 million during this reporting period, with monies being spent on a wide range of EHS projects including improvements to fire alarm, lighting and heat recovery systems.



Permit to work team

Occupational Health and Hygiene

We aim to promote and maintain occupational health standards, and where possible to improve health awareness of our employees. To help achieve this, our specialists in occupational health and hygiene support staff across our sites in carrying out workplace health risk assessments. These are based on Ciba guidelines that define measures to safeguard the health of our employees and visitors. Each area on site has its own assessment addressing the departmental needs.

Issues assessed include:

- Appropriate health surveillance e.g. hearing tests
- Attendance management
- Disability advice
- Monitoring the environment
- Musculoskeletal issues - backs, upper limb problems
- Thermal issues
- Addressing any health concerns

These assessments are continuously reviewed with local managers and employee representatives.

During 2008, we successfully rolled out a rehabilitation strategy to assist employees to return to work after an absence, through illness or injury.

This approach is now being used to help employees avoid absence, and involves making adjustments to their job at the onset of a medical problem. Occupational health advisers will help employees assess their capabilities to carry out normal duties. Where this is not possible, restrictions and adjustments will be built into a rehabilitation plan. This plan will then be reviewed until the symptoms subside.

Improving EHS Performance

The Site Leadership Team has agreed site targets for 2009 on:

- Lost time accidents
- Minor injury accidents
- Losses of containment
- Reportable incidents
- Waste generation
- Energy consumption

These topics will allow Bradford and Grimsby operations to focus on local priorities and contribute to Global EHS Targets.

Feedback from the safety workshops has highlighted several areas that the organisation may be able make further improvements. They include:

- Raising the profile of members of the site leadership team
- Improving the use of near miss reporting
- Providing feedback
- Communications planning
- Accident investigation review

As part of a wider industry and regulator agenda, we have made commitments and taken the first steps to develop appropriate performance indicators for process safety. This approach involves the site leadership team and local management of our production plants covered by the Control of Major Accident Hazards (COMAH) Regulations. Our target is to have fully developed process safety indicators by the end of 2009.

We are confident that our current EHS targets and initiatives will deliver continued improvements and will contribute to operational excellence in all aspects of business during 2009.



Health screening at Bradford

In the Community

At Ciba, we recognise the importance of our relationships with customers, neighbours, employees, union representatives, shareholders, government officials, regulators and local media.

We strive to build and maintain these relationships through open days and community meetings, neighbourhood newsletters, offering work experience placements and supporting local charities.

Over the last few years, the Bradford site has encouraged employees to participate in community work. During the year over 50 colleagues worked on a variety of projects including helping with a Right to Read programme, mentoring and one-to-one coaching. Other activities included repairing a fence at a local cricket club, taking part in a clean-up at the local woods and supporting local schools with presenting science through the ages.

As signatories to the Chemical Industries Association's Responsible Care® programme, we are committed to working within the community and to supporting its right to meaningful and clearly explained information about our site operations and our EHS activities.

We regularly publish and distribute our COMAH major emergency safety information booklet and, at Bradford, we published two editions of Talking Community, a newsletter delivered to over 6000 households near the site.

Listening to our neighbours is important to us and we regularly host "Community Liaison" meetings. These offer our neighbours, local authorities and staff from the Health and Safety Executive and Environment Agency the opportunity for an open dialogue with our senior managers.

We encourage the reporting of nuisance incidents, both on-site by Ciba employees and off-site by our neighbours. This approach allows for the early identification of the cause of the complaint and remedial action to prevent a recurrence.

In 2009, we plan to support WaterAid as our chosen charity and have various employee and community events planned.

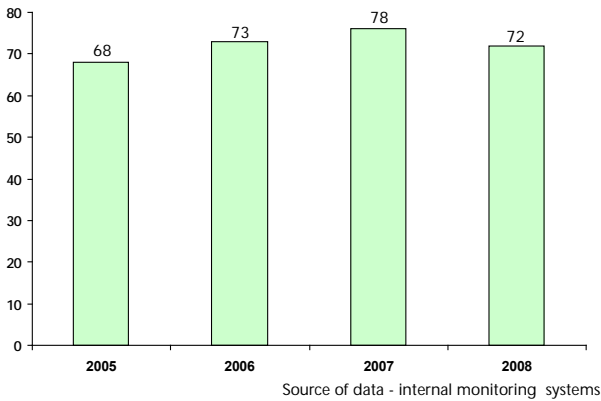


A community task at Woodlands Cricket Club

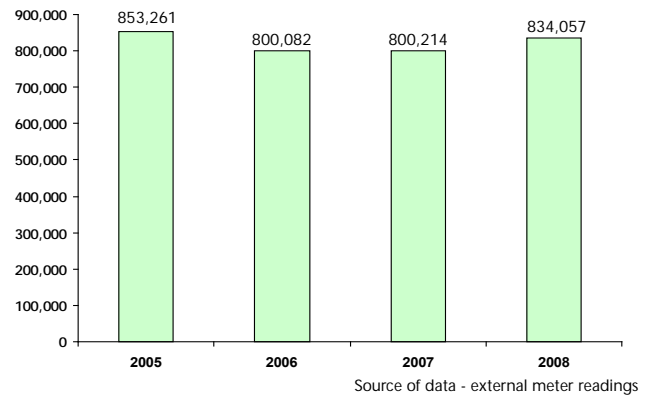
Performance Data

We collect EHS performance data in Ciba's global SEEP database. The global information is published annually and is available on our website (www.ciba.com), together with the 2008 EHS report for Bradford and Grimsby. Some of the key SEEP data for the sites is outlined below. Both Bradford and Grimsby are top tier sites under the COMAH regulations, as well as holding environmental permits under the Integrated Pollution Prevent and Control regime. During 2008, no prosecutions or enforcement notices were taken against Ciba by the Competent Authorities under these regulatory regimes, nor are any pending.

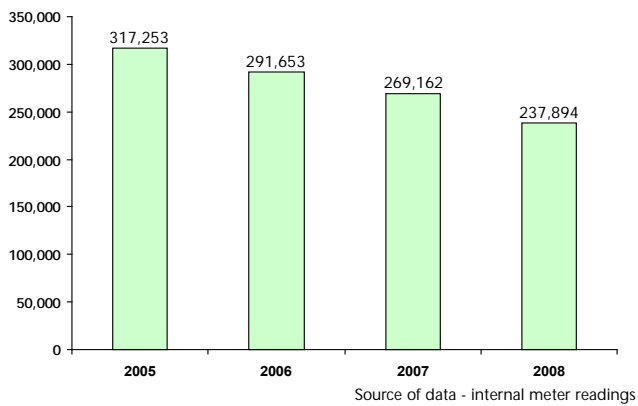
VOCs (Tonnes)



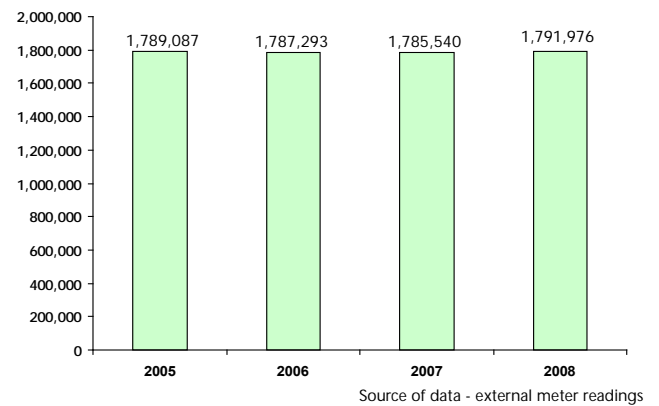
Total Water (m³)



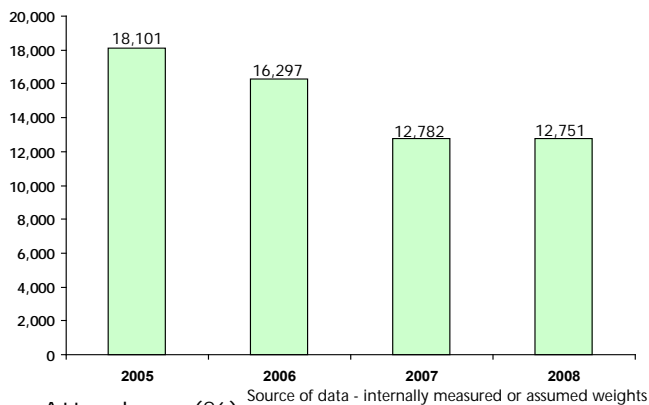
Effluent (m³)



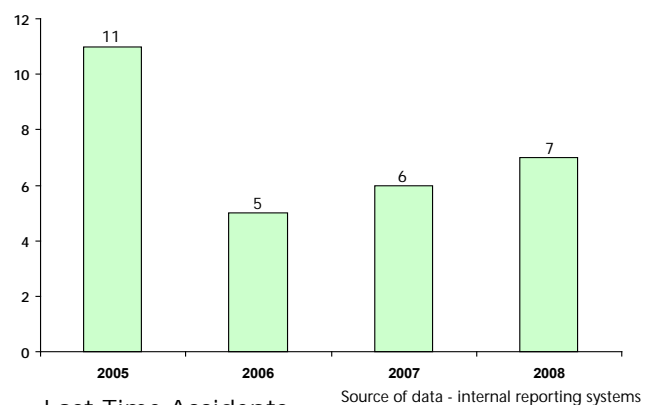
Energy (Gigajoules)



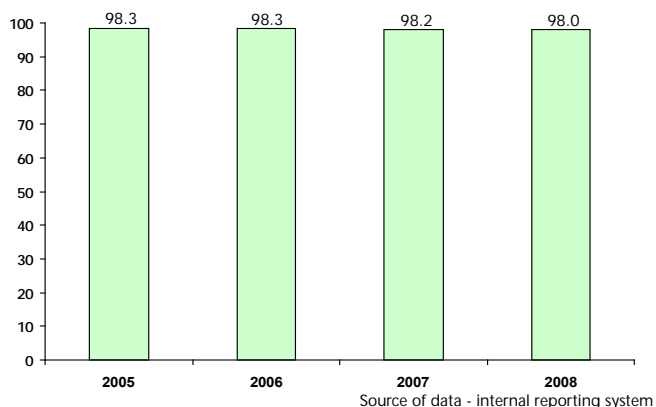
Waste (Tonnes)



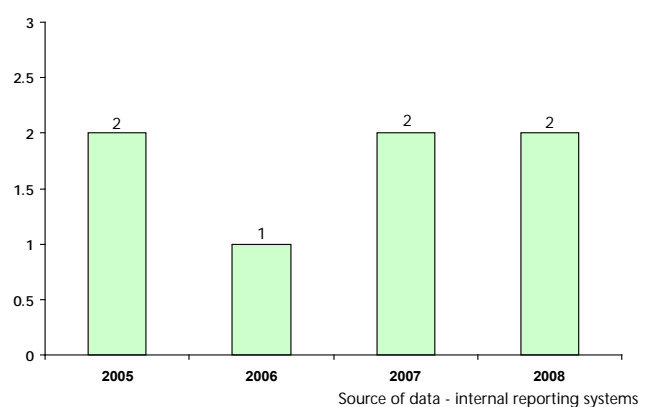
Nuisance Complaints



Attendance (%)



Lost Time Accidents



About Ciba

Ciba is a leading global company dedicated to producing high-value effects for its customers' products. We strive to be the partner of choice for our customers, offering them innovative products and one-stop expert service. We create effects that improve the quality of life-adding performance, protection, color and strength to plastics, paper, automobiles, buildings, home and personal care products and much more.

Ciba is active in more than 120 countries around the world and is committed to be a leader in its chosen markets. In 2008, the Company's continued operations generated sales of CHF 5.9 billion and invested more than CHF 230 million in R&D.

The Bradford and Grimsby sites primarily manufacture products that are used to enhance industrial processes in various industries that include industrial and municipal water treatment, mining and oil and agriculture.

Of the 850 plus workforce, many have been recruited through the long-established links with local schools and colleges. The Company has access to well-developed courses in science and engineering leading to degree qualifications and many of the Company's senior management have been developed through this process.

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Grimsby
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North Lincolnshire
DN31 2SY
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Responsible Care

Assurance Statement

Atkins Ltd were commissioned by Ciba UK to undertake a third party review of the data presented in the Environmental, Health and Safety Report 2008, covering exclusively its operational sites at Bradford and Grimsby, and make comment on its accuracy and reliability. Atkins Environment has no other relationship with Ciba UK that may compromise its impartiality and independence in this role.

Atkins Ltd undertook the following activities as part of this commission:

- A review of the draft report to identify key areas where performance has materially changed from 2008
- Visits to both Bradford and Grimsby sites
- Interviews with key personnel involved in the management of EH&S issues at each site
- Review of EH&S management structures, responsibilities, data monitoring processes and key documentation.

On the basis of the activities undertaken, evidence and answers provided, Atkins Ltd is satisfied that the information provided within the Environmental, Health and Safety Report 2008 fairly represents the activities carried out at both Bradford and Grimsby sites with respect to environmental health and safety performance.

