

MORE FROM LESS

News from the UK precast concrete sustainability project

ISSUE 3

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Introduction

This newsletter has been produced in support of the four-year Engineering Doctorate project being undertaken with Loughborough University dedicated to developing a sector sustainability strategy for the UK precast concrete and masonry industry. The project and this newsletter are sponsored by the British Precast Concrete Federation over the four years to September 2008.

The purpose of the newsletter is to inform both the precast industry and other stakeholders of developments resulting from the project, ways in which contributions can be made and where further information can be obtained. I look forward to working with as many of you as possible during this project – please feel free to pass *More from Less* to colleagues. Your contributions to future issues are very welcome.

Ian Holton – Editor

British Precast Sustainability Awards

This edition of *More from Less* focuses on the British Precast Sustainability Awards and the award sponsors The Concrete Centre. In his welcoming address at the Best Practice Awards Dinner, British Precast President David Szymanski noted that a more sustainable approach was the key to the future of the precast industry; more outputs from less inputs, more profitable operations at less cost, more efficiency and less waste, and more trained staff with fewer accidents.

The industry is now making encouraging progress towards sustainability and the aim of this year's award scheme was to publicise that progress and reward excellence within the British Precast membership. Entries were invited on either a single-site or company-wide basis, and judged against their sustainability benefits, innovatory approach, wider applicability and employee participation. The judges were Dr Jacqui Glass of Loughborough University and Andrew Frost of The Concrete Centre.

Award Winners



The winning entries in the single-site category this year demonstrated the positive link between profitability and a rigorous approach to waste minimisation. Many of the entries were relatively simple and cost-effective solutions to common problems that everyone in the industry could learn and benefit from. Marshalls Eaglescliffe Works won the category with their work to reduce water consumption, running costs and their overall environmental impact. Significant results were produced through the combined efforts of everyone that works at the site, together with the effective implementation and combination of their Quality, Health and Safety, and Environmental Management systems into an integrated management system. Recycling of previous waste streams, including used pallets, steel waste and reject concrete is now fully implemented.

Neil Glover of Marshalls receiving his award from Lord Hunt and Andrew Frost.

Second place winners were Al-Bradstone's Hulland Ward site for their biodiversity and conservation work, and third place went to Marley Eternit's Beenham site for eliminating a hazardous waste stream previously sent to landfill, which reduced their environmental impact and reduced their waste cost by 50%. Marshalls Brookfoot Works also received two Highly Commended awards for their water recycling with CO₂ gas and Saxon dust recycling projects.



The winning entries in the corporate category showcased the efforts of the larger member companies who, with their specialist teams, are working to establish more sustainable production and operational platforms. Marley Eternit won the category for their development of a company-wide life cycle assessment (LCA) programme. As a result of this, Marley Eternit is leading the way by having LCA data for all of its products, is reducing the environmental impact of its products, and is influencing the supply chain by running CPD seminars on sustainable pitched roofing.

Norman Richards and Rebecca White of Marley Eternit receiving their award from Lord Hunt, Andrew Frost and Martin Clarke.

Tarmac Concrete Products won second place in the corporate category for developing and implementing a company-wide energy saving strategy (SavE) involving employees at all levels; by providing a sound framework for monitoring and reviewing progress, and cost savings of 15% per annum have been achieved with associated environmental benefits. Joint third place winners were Al-Charcon for their work to improve sustainability performance through reduced water extraction, waste, energy usage and vehicle movements, and Marshalls for their review of logistics for increased sustainability.

Details of all the entries and award winners can be found in the Best Practice Awards 2005 brochure 'Moving the Industry Forward', available from info@britishprecast.org or as a download at www.britishprecast.org.

Health and Safety

Sustainability is not just about minimising waste, saving energy and reducing our environmental impact. It also has a social element that includes looking after the welfare and development needs of our workforce. Through the 'Concrete Targets' scheme our industry has made significant improvements to its health and safety record, with a near halving of accidents in the last four years. This year's winners of 2, 3 and 4 star Concrete Target Awards, sponsored by Redrock, were announced at the awards dinner.

British Precast also rewards excellence amongst its membership through its Health and Safety Awards. The focus of this year's scheme, sponsored by Lafarge Cement UK, was 'working at height'. The winner, selected from over 30 entries, was Hanson Building Products Derby Works, for eliminating unprotected working at height during the movement of concrete culverts from production to the stockyard and subsequent loading, by re-engineering the process. Judge Clive Brookes of the HSE commented: "This entry showed the determination to take out a major potential cause of fatalities by reviewing the whole process. It was a radical solution to working at heights and it makes the process more efficient as well."

British Precast Chief Executive Martin Clarke notes that "we must continue to design out preventable risk in manufacturing, transport and site operations – sharing experiences and ideas with each other and with the HSE is a key role for British Precast". The Awards brochure therefore features many of the other entries to demonstrate how working at height can be made safer or even eliminated from a wide range of common tasks.

The Concrete Centre

The Concrete Centre was formed in 2003 to fill a void in the marketing of concrete. The concrete industry is traditionally diverse and fragmented due to the wide variety of product and technologies, made possible by the versatility of the material. This diversity can be a powerful driver of innovation and development, but needs a focal point to ensure that the complexity and flexibility of this material are communicated as a competitive advantage. This is the role of The Concrete Centre.

The Concrete Centre aims to assist all those who design and construct in concrete whether they work for national or local government, client bodies, architectural practices, civil and structural engineering consultancies, main and specialist contractors or housebuilders.

Sustainability

The Concrete Centre's role on sustainability is to inform specifiers of the sustainability credentials of concrete and to influence Government and legislators of the concrete sector's point of view on sustainability issues.



Andrew Frost joined the Centre as Sustainability Manager in May this year. Andrew is an environmental scientist and has been involved in a diverse range of projects including Environmental Impact Assessments, contaminated land reclamation and bioremediation, the development of hydrological modelling techniques and investigations into pollutant flows in fractured aquifers using Electrical Resistivity Tomography. In 2003 Andrew was awarded the John Connell Memorial Prize by the Institute of Environmental Sciences for his contribution to hydrological research. Andrew and his young family practice what he preaches, enjoying the self-sufficient 'Good Life', keeping bees, chickens and a small flock of sheep on his two acre small-holding.

Andrew describes his role as assisting specifiers to take a holistic view on sustainability, considering it's intrinsically linked social, economic and environmental themes and to present a fair and balanced view of the outstanding sustainability credentials of concrete to people both inside and outside of the concrete industry. He considers sustainability to be core to all business rather than a bolt-on and feels that it is going to come to the fore as people open their eyes to the challenges our lifestyle has created in recent decades.

The Concrete Centre regards sustainability as an important issue for the industry. To promote the industry's achievements in this area it sponsors British Precast's Sustainability Award and has also just launched a new Sustainability Award in association with The Concrete Society. Visit www.concretecentre.com/PDF/Sustainability_Award_Entry_Form.pdf for further details.

Education and Training

The Concrete Centre offers a full education and training programme which provides in-depth knowledge and examination of concrete issues and developments, materials and standards, to meet both CPD requirements and the wider needs of the construction industry as a whole. Publications include the provision of design guidance on a wide range of topics such as structural design, fire, sustainability, acoustics, thermal properties and durability. A programme of events, lectures and exhibitions is run to both inspire and inform by promoting and celebrating the best of concrete design and construction. Visit <http://www.concretecentre.com/main.asp?page=14> for further details.

Sustainability Project News

News from the UK precast concrete sector sustainability strategy project is also available on the Sustainable Precast website www.sustainableprecast.com

Top 10 business issues

Thanks to all those that responded to Martin Clarke's request to supply a list of your top 10 business issues for 2005/06. These were used in the industry workshop reported below.

Workshop: "What does a sustainable precast industry look like?"

This industry workshop was held at Loughborough University on 7 September, facilitated by Dr Jacqui Glass and Ian Holton. Its purpose was to openly discuss the opportunities and benefits that sustainability can bring to both precast products and precast production, in order to help identify the industry's sustainability priorities. Participants were drawn from many different sectors of the industry.

In the first task, the workshop participants identified profitability and competitiveness to be the top business issue for the precast industry. Ten further issues were then identified which contributed to this:

- Health and safety
- Employment
- Supply chain inc. transport
- Social/community
- Energy
- Resources
- Waste
- External threats
- Legislation
- Market image

Since sustainability encompasses all of these issues, this shows that the profitability and competitiveness of the industry is intrinsically linked to its sustainability.

In the second task, actions were suggested to address the above issues. The actions proposed will require the industry to be more responsive and responsible, to improve its internal practices and performance, and reduce its external effects. Those responsible for these actions include both individual companies and the industry's trade associations and product groups.

This led to the definition of a sustainable precast industry as one which:

- is profitable and competitive;
- is responsive and responsible in all aspects of its business; and
- strives to improve its internal performance whilst reducing its external effects.

Sustainability and the Concrete Producer

This one-day seminar on Thursday 1st December is being jointly organised by British Precast and BRMCA. It will be of interest to all those involved in the production and distribution of concrete and concrete products, as well as quality, health and safety, and environmental management. Topics will include production, transport, and cement and concrete technology issues, waste minimisation and respect for people. Many of the speakers will be industry practitioners with day-to-day experience of dealing with sustainability related issues in the precast and ready-mixed concrete industries. The seminar will be held at the Holywell Court Conference Centre in Loughborough, which is easily accessible from junction 24 of the M1. See the British Precast events website for further details (<http://www.britishprecast.org/events/events.php>).

British Precast Sustainability Committee

The next Committee meeting will be held at the British Precast offices in Leicester on Wednesday 14th December. Contact Colin Nessfield (cdn@britishprecast.org) for further details.

Industry Headlines

Sustainability related news headlines from the cement and concrete sector, and beyond.

Code for Sustainable Buildings

The proposal for a Code emerged from the 2004 report of the Sustainable Buildings Task Group. It is seen as a significant advance in the sustainability debate by Government, focusing on waste during the construction process, in addition to water, energy and materials. It will initially apply to all new public sector housing, but may be extended in time to cover repair and maintenance, as well as the private sector. A 3-month formal consultation on a draft Code is expected to start in November, followed by the release of the final document in April 2006. British Precast is following developments through the Construction Products Association.

Sustainable Construction Strategy

The Government produced a Sustainable Construction Strategy in 2000, and have now embarked on a process to update it. A draft document is expected to be available for industry wide consultation in November, with publication of the final document in spring 2006. Key elements in the strategy are expected to be improving health and safety, and on-site waste minimisation. British Precast has already informally discussed the review with the DTI and will be making direct representations during the consultation period.

Sustainable Procurement Task Force

The Task Force was set up in May 2005 by Margaret Beckett and the Treasury. It is charged with developing a national action plan for ensuring that public procurement fully contributes to sustainable development in the UK, taking into account the existing EU and UK legal framework governing public procurement. The action plan is expected in April 2006 and will cover all aspects of procurement including construction.

Packaging

DEFRA has issued a press release about its decision on the changes to the Packaging Waste Regulations it will implement. This can be found at: <http://www.defra.gov.uk/news/2005/051020c.htm>

DEFRA will also be holding a conference on packaging on 17th January 2006 in London. The conference will aim to address both the packaging industry in terms of meeting targets, deterring free riding and setting up new initiatives; and local authorities, waste management companies, reprocessors and collectors in terms of collection from commercial, industrial and domestic waste streams and reprocessing. For further information please e-mail packconf@defra.gsi.gov.uk.

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