

MORE FROM LESS

News from the UK precast concrete sustainability project

ISSUE 5

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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.

Ian Holton – Editor

British Precast Sustainability Awards

This edition of *More from Less* focuses on the British Precast Sustainability Awards, sponsored by The Concrete Centre. The aim of the award scheme is to reward excellence within the British Precast membership and to publicise the progress of the industry towards sustainability. More than 20 excellent entries were received in the two award categories, which showcased the ever increasing progress being achieved by companies on a broad range of environmental, social and economic issues.

The judges, Andrew Frost of The Concrete Centre, Dr Jacqui Glass of Loughborough University and Ian Holton from British Precast, were impressed by the number, quality and diversity of entries to this year's awards. They had no doubt that significant progress was being made in the industry, especially amongst the leading entries which showed a real commitment to sustainability, integrating it into company and site practices, and recognising that it will provide long-term value.

Award Winners

Entries in the corporate category demonstrated the wide range of ways in which companies are now moving the sustainability agenda forward. Tarmac Building Products won the category with their Save



Energy Information Campaign. This campaign is part of the company's ambitious plan to reduce energy consumption per unit production by 15% from 2004 to 2014, and recognises the need for employee participation at all levels in achieving this target. The judges felt that this entry demonstrated a very clear and structured approach to energy saving and raising staff awareness that could easily be adopted by other companies.

Graham Green receiving the award on behalf of Tarmac Building Products from Professor Peter Robery, President of The Concrete Society

Marley Eternit won second place for their work on packaging waste reduction. This was a thorough approach to the problem, above and beyond current legal requirements, which provided quantifiable benefits to supply chain partners as well as to the company itself. Significant cost and resource savings were achieved by following good sustainable practices, and a wide range of staff were involved or consulted in the course of the project.

Third place went to Aggregate Industries for their Fyfestone Enviromasonry, a product range developed in response to the demand for sustainable products for construction. This project demonstrated the benefits that can be gained through optimising the use of secondary materials in production processes, and the increasing importance of environmental performance and product certification to specifiers.

Entries in the category for site-specific projects also covered a wide range of initiatives covering social progress, environmental protection and resource conservation, all of which resulted in economic benefit. The winners were Marley Eternit, Delamere, for their competence training and awareness programme which has actively developed the skills and knowledge of its workforce on environmental issues. Benefits of the programme include: reduced risk of environmental pollution; improved



housekeeping; early identification of environmental hazards; quick and effective responses to incidents; positive environmental culture and improved environmental performance with minimum capital spend. The judges commented that this outstanding entry demonstrated how to achieve a positive environmental culture and identified many of the long-term environmental performance benefits such an approach could provide.

The winning Marley team with Professor Peter Robery, President of The Concrete Society

Marshalls, Maltby, won second place with their enthusiastic and sincere approach to biodiversity and conservation involving employees and the local community which ably demonstrated how to manage the external effects of the industry. Maltby is the first manufacturing site in the country to gain the new Wildlife Trust Biodiversity Benchmark.

Third place went to Marshalls, Brookfoot, for their waste management programme. This entry demonstrated an exemplary long-term commitment to waste management, a clear understanding amongst staff of the benefits to the company and the wider community, and a well established culture of employee involvement. Through the programme packaging waste was reduced from 1,200 tonnes in 2001 to just 40 tonnes in 2005.

Highly Commended awards also went to Marshalls, Hambrook, for their sustainability through benchmarking, and Hanson Thermalite, Purfleet, for their work on boiler house efficiency.

Details of all the entries and award winners can be found in the Best Practice Awards brochure 'Moving the Industry Forward 2006', available from info@britishprecast.org or as a download at www.britishprecast.org.

Andrew Frost

Andy was unable to attend the Awards dinner due to being involved in a serious road accident. British Precast wishes him well and hopes that he will soon be championing sustainability once again at The Concrete Centre.

Noise and Vibration

The British Precast Health and Safety Awards focussed this year on reducing the impact of noise and vibration on the working environment. The winners were Aggregate Industries Stoneflair plant at Newark, for involving a wide range of staff in re-engineering one of their production processes to completely eradicate the use of vibration tools and improve manual handling, such that a 50% improvement in productivity was achieved. Joint second place was awarded to Marshalls, Sandy, and Hanson Building Products, Hoveringham. Both sites introduced the use of self-compacting concrete in order to eliminate exposure to noise and vibratory hazards, and consequently found that they were able to achieve improvements in production times with no increase in material costs.

No Waste

Winner of this year's British Precast Innovation Award was Bison Concrete Products for their Swadlincote hollowcore flooring plant. Of particular note amongst the many innovations at the plant is the fact that there is no wastage. At every point during the production process, waste material, both wet and dry, is conveyed to a recycling area in which the constituent parts are all reclaimed.

The Sustainability Issue Seminar – a must for all sales and marketing staff

This essential one-day seminar for sales and marketing professionals in the cement and concrete industry, jointly organised by British Precast and BRMCA, will be held at the Holywell Court Conference Centre in Loughborough on Thursday 30 November. In response to demands from the industry, the seminar has been designed to assist sales and marketing staff deliver a positive message on sustainability for their companies and the industry as a whole, as well as gain a better understanding of the claims being made by competing products and materials.

Through a combination of presentations and question and answer sessions with leading experts in the fields of marketing and sustainability, delegates will learn:

- The sustainability arguments in favour of concrete products
- The strengths and weaknesses of competing products and materials
- How concrete products rank in the BRE Green Guide
- How to present the sustainability profile of a company
- How to answer environmental and sustainability questionnaires from architects, clients, engineers and builders merchants
- Where to go for further information

Early booking is advised as there is already considerable interest in this event. For further information visit the British Precast events website at <http://www.britishprecast.org/events/events.php>, phone the events team on 0116 253 6161 or e-mail awards@britishprecast.org.

British Precast Sustainability Committee

A reminder that participation in the Sustainability Committee is open to representatives of all member companies and that one of the functions of the Committee is to provide a forum in which members can share experience of such issues as environmental management certification, corporate social responsibility and community relations. The next Committee meeting will be held at the British Precast offices in Leicester on Wednesday 6 December. Contact Colin Nessfield for further details (colin.nessfield@britishprecast.org).

Sustainability Project News

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

Identification and prioritisation of sustainability issues for the precast sector

A research paper on this subject, drawing on information gathered from the questionnaire survey conducted earlier this year, was presented by Ian Holton at the Corporate Responsibility Research Conference 2006 held in Dublin in September.

The ten top issues affecting the profitability and competitiveness of the industry, and by association, its sustainability, have been found to be:

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

Consideration of these issues shows that three are pan-industry issues: external threats; legislation; and market image. As the industry's trade association, British Precast exists to manage these on behalf of the sector. The others, relating to internal performance and external effects, need to be addressed at company level with the support of British Precast and the industry's supply chain; but in what priority?

Analysis of the questionnaire survey results found health and safety to be the highest priority amongst these issues for all companies, but priorities on other issues were found to vary between different groups of companies; for example, multi-national companies (MNCs) had different priorities to small to medium-sized enterprise (SME) companies. The survey also found the industry to have a high level of adoption of policies and procedures in areas related to safety and environmental compliance, but lower levels in the areas related to resource efficiency and social progress. Since these policies and procedures all relate to aspects of sustainability, this suggests that some companies in the industry are more advanced in tackling the sustainability agenda than others. Because of this, the paper concluded that differences in the sustainability priorities of companies were to be expected and all of the issues would need to be addressed in order to encourage companies to be more responsive and responsible in all aspects of their business.

Six stages in the development of corporate sustainability have been proposed by a group of Australian researchers, ranging from rejecting or not responding to the issue of sustainability, to being pro-active on environmental and social issues, and contributing to the emergence of a sustainable society. The paper goes on to suggest that companies in the precast industry are following these stages and identifies the need to engage with the whole industry and to facilitate the progress of individual companies through the development stages as a priority for the precast sector sustainability strategy. Ways to facilitate this progress will form the next phase of the sector strategy research programme.

Sustainability poster

A new A1-sized poster has been produced for display on office and factory notice boards. The poster highlights the industry's progress on sustainability and is a useful way of keeping staff at all levels informed of what sustainability means for precasters. It is printed in full colour on an environmentally friendly recycled heavy weight paper to ensure visual impact and durability. Copies are £10 each including post and packing, and can be ordered through the British Precast website or by phoning the events team on 0116 253 6161.

Industry Headlines

BS 8555 STEMS (Steps to Environmental Management Systems)

BSI Management Systems has recently launched a new series – the BS 8555 STEMS Scheme – which is a stepped approach to implementing an Environmental Management System. The Scheme enables an organization to implement the requirements of a full environmental management system through following a series of six phases as laid down in BS 8555. Companies can also gain independent recognition of their achievements at each step as they work towards ISO 14001 or EMAS registration

The six key phases of the scheme are:

1. Commitment and establishing the baseline
2. Identifying and ensuring compliance with legal and other requirements
3. Developing objectives, targets and programmes
4. Implementation and operation of the EMS
5. Checking, auditing and review
6. EMS acknowledgement:
 - ISO 14001:2004 registration; or
 - EMAS verification

To find out more about the requirements, features and benefits of this stepped approach visit http://www.bsi-uk.com/Environment/BS_8555.

BCA: Performance

The latest edition of Performance, the corporate responsibility report for the UK cement industry, was published by the British Cement Association in July and is available to download at http://www.cementindustry.co.uk/PDF/Performance_Jul06.pdf. The report includes a review of the work being done towards achieving a more sustainable cement industry, together with reviews of the industry's economic, social and environmental progress during 2005. Of particular interest is the plan agreed with the Environment Agency, which provides a framework of agreed national environmental objectives for the cement industry over the next five to ten years.

Martin Clarke of British Precast took part in a day long stakeholder workshop on cement sustainability issues organised by the BCA in July. The outcomes from this workshop will be reported in a later edition of this newsletter.

Improving sustainable resourcing within ready-mix concrete in the UK

The British Ready-mixed Concrete Association in conjunction with Loughborough University and BRE, are starting a research programme to improve the sustainable resourcing of the UK ready-mix industry and develop an industry stewardship product initiative which will draw together the social and environmental components of sustainability.

Responsible resourcing is an area of growing importance in the construction sector and developments arising from this research will be closely followed through the Concrete Sector Sustainability Working Group.

Code for Sustainable Homes

Responsibility for the Code now lies with the Department for Communities and Local Government (DCLG) following the recent changes to the structure of government. Although this isn't a significant change since DCLG is essentially the Office of the Deputy Prime Minister (ODPM) renamed. All that can be reported at present is that development of the Code continues, closely monitored by the Construction Products Association, and it is still expected to come into force in 2007.

Forthcoming Events

Sustainability//ive/

This new exhibition will take place on 1-3 May 2007 at the NEC, Birmingham. Expected to attract up to 10,000 visitors, the event is billed as the UK's largest forum for excellence and innovation in water, environment, land and energy, featuring over 500 exhibitors; a high level conference; seminars and workshops and Industry Achievement Awards. Visit <http://www.sustainabilitylive.com> for further information.

7th International Concrete Congress

The Concrete Technology Unit at the University of Dundee are holding their 7th International Congress "Concrete: Construction's Sustainable Option" in Dundee from 4-6 September 2007. Conference themes include:

- Role for concrete in global development
- Precast concrete: towards lean construction
- Concrete durability: achievement and enhancement
- Designing concrete for the visual environment
- Concrete for Fire Engineering
- Harnessing fibres for concrete construction

British Precast is a sponsor of the Congress and will be presenting papers on the development of the international precast industry, and health and safety, and sustainability, in the UK precast industry. See <http://www.ctucongress.co.uk> for further details.

International Conference on Sustainability in the Cement and Concrete Industry

The Norwegian Concrete Society in conjunction with CANMET/ACI are organising a conference to present the latest available information that will insure "Sustainability in the Cement and Concrete Industry". The conference will be held in Lillehammer, Norway, 16-19 September 2007. Technical papers have been invited in the following areas:

- Reduction of greenhouse gas emissions
- Reductions in the consumption of natural resources and energy
- Health issues related to the production and use of cement and concrete
- New possibilities for the cement and concrete industry related to increased attention to a more sustainable society
- Life cycle assessments, durability and environmental accounting
- Emissions and leaching
- Energy storage – use of concrete for enhanced energy efficiency of buildings
- Waste handling
- Recycling and re-use of concrete and binder materials including industrial by-products
- Use of cement for solidification and stabilization of various materials and hazardous wastes
- The use of codes and standards to promote sustainable development

See <http://www.sustainableconcrete.no> for further details

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