British Precast Targets 2012

Fourteen proposed sustainability indicator targets were discussed at a British Precast Council meeting in December 2009 and were approved and signed by President Steve Parker. British Precast members are committed to achieving the following targets by 2012 compared with the baseline year of 2008:

- Reducing overall kWh / tonne of energy used in production by 10% ✔ Achieved
- Reducing CO2 emissions from production by 10% ✔ Achieved
- Reducing kg / tonne waste to landfill by 10% ✔ Achieved
- Increasing the proportion of alternative cement additions (as a % of total cement) to 85% ✔ Achieved
- Increasing the proportion of recycled / secondary aggregates (as a % of total aggregates) to 25% ✔ Achieved
- Reducing mains water consumption by 5% ✔ Achieved
- Reducing ground water consumption by 5% ✔ Achieved
- Reducing reportable injuries per 100,000 direct employees by 10% per year ✔ Achieved
- Increasing the % of production sites covered by an EMS (e.g. ISO 9001 / ISO 14001 / OHSAS 18001) to 85% ✔ Achieved
- Increasing the % of production sites covered by an EMS (e.g. ISO 14001) to 25% ✔ Achieved
- Increasing the % of employees covered by a certified management system (e.g. ISO 9001 / ISO 14001 / OHSAS 18001) to 85% ✔ Achieved
- Increasing the % of production sites covered by a Quality system (e.g. ISO 9001) to 85% ✔ Achieved
- Reducing the convictions for air and water emissions to zero ✔ Achieved
- Improving the capture of Transport data ✔ Achieved
- Improving the capture of Transport data ✔ Achieved
- Maintaining the % of relevant production sites that have community liaison activities at 100% ✔ Achieved

For further information, please contact Dr Hafiz Elhag, British Precast Sustainability Manager, hafiz.elhag@britishprecast.org

or refer to the British Precast website: www.britishprecast.org www.sustainableprecast.com www.sustainableconcrete.org.uk

SUSTAINABLE CONCRETE ROADMAP 2020

A new sustainability strategy and roadmap to 2020 for the concrete sector was launched in February 2012 by the Sustainable Concrete Forum. The new strategy aims to establish the UK concrete industry as leaders in sustainable construction, by taking a dynamic role in delivering a sustainable, zero carbon built environment. The main objectives include committing the sector to its role in achieving a sustainable built environment, engage with the broader supply chain to inform good practice and continue to explore new ways of improving sustainable production performance.

The industry will contribute to the delivery of a zero carbon built environment, provide Life Cycle Assessment data compliant with recognized codes and standards and develop a Material and Resource Efficiency Programme, a low Carbon Freight initiative, a Water Strategy and will target continuous improvement of sustainable production performance and report performance annually.

Targets for 2020 include the following:

- 90% reduction in waste to landfill by 2020 (from 2008 baseline)
- 30% reduction in CO2 emissions from concrete production by 2020 (from 1990 baseline)
- 95% of production certified to responsible sourcing standard BSI 6601 by 2020

For more information on the strategy and the concrete sustainability roadmap for 2020 visit www.sustainableconcrete.org.uk, information can also be found at: www.bpcfcharter.com

British Precast will set new sector targets for 2013-2020 once 2012 data is received next year.

RAISING THE BAR INITIATIVE

With an influx of small members from the Concrete Block Association the Council of British Precast decided that the mandatory requirement to sign up to the Sustainability Charter would be postponed to 2013. During 2012 one member left the Federation after refusing to sign the Concrete Targets 2015 pledge on health & safety.

In order to help members keep track of their status under the Raising the Bar scheme and to highlight to clients, specifiers and customers the various management system credentials of members, British Precast maintains a microsite www.bpcfcharter.com

PRECAST SUSTAINABILITY CHARTER

The Sustainability Charter was launched on the 29th November 2007. Members were originally asked to make a voluntary commitment to the following requirements:

- Develop products that improve the quality and sustainability of the built environment
- Liaise effectively with local communities to foster mutual understanding and respect
- Manage all waste streams effectively and minimise waste disposal to landfill
- Minimise pollution and emissions associated with production and transportation
- Operate in a responsible manner to protect employees, contractors and visitors
- Operate in an efficient and financially sustainable manner without compromising legal, quality or sustainability principles
- Operate to the highest ethical standards necessary to develop a skilled and competent workforce
- Operate to the highest quality standards necessary to satisfy customers and consumers
- Protect and enhance the natural environment adjacent to or affected by precast production
- Recognise that competition encourages the development of more sustainable products and practices
- Use energy more efficiently and reduce carbon footprints
- Use primary materials more efficiently and promote the use of secondary materials
- Use water more efficiently and minimise demands on mains water supplies
- Work constructively with other organisations to deliver sustainable policies and practices

For more information on the strategy and the concrete sustainability roadmap for 2020 visit www.sustainableconcrete.org.uk, information can also be found at: www.bpcfcharter.com

British Precast will set new sector targets for 2013-2020 once 2012 data is received next year.
These indicators provide an overview of the impact of the precast industry on society and the environment, and how that impact is managed. The figures here relate to the 2009 to 2011 calendar years, and notes are included to indicate how performance has changed since 2008.

QUALITY AND SATISFACTION
9.45 kg/m³, or 93.9% of reported production was covered by an ISO 14001 certified quality management system or a recognised Manufacturers Quality Assurance Scheme in 2011. This company performs with 80.6% of coverage in 2008 and 87.9% in 2009 and 93.1% in 2010.

Note: 2012 target of 85% is already being achieved.

ENERGY INCLUDING CLIMATE CHANGE
49.5 kWh of energy was used per tonne of concrete produced in 2011, which 48.5% was gas, 24.4% was electricity and 20.6% was gas-oil or diesel. This is equivalent to 14.0 kg of CO₂ per tonne of concrete produced. These figures are better than the data reported in 2008 (71.33 kWh) and 2009 (63.13 kWh) and 2010 (71.39 kWh).

Note: 2012 target of 10% reduction in energy usage and CO₂ per tonne is currently being achieved.

Pollution/Emissions, including transport
9.35 tonnes, or 96.88% of reported production, was covered by an ISO 14001 or EMAS UKAS certified environmental management system in 2011, comparing favourably with 83.6% of reported production in 2008, 83.5% in 2009 and 90.3% in 2010.

Note: 2012 target to increase coverage to 85% is already being achieved.

No environmental incidents were recorded or reported to external regulatory authorities in 2009 or 2010, or if 10% compared with 8.9% of reported production in 2008, 8.7% in 2009 and 9.3% in 2010.

Note: 2012 target to maintain convictions to 0 is currently being achieved.

Transport data covered in 2011 remained good, with 9 companies supplying data showing the average lorry carried 11 tonnes concrete per delivery, compared with 71 companies reporting an average of 8.6 tonnes produced in 2008. The average delivery distance in 2011 was 96 km, compared with 203 km reported in 2011. Transport data was provided for 9.3 m tonnes production in 2011, compared with 3 m tonnes in 2008.

Note: 2012 target to increase coverage to 85% is currently being achieved.

RESOURCE USE - MATERIALS
33.29 kg of waste was produced per tonne of concrete in 2011, of which 4.27% was reported as landfilled. 44.64% was recycled on site and 51.15% recycled off site.

The overall waste produced in 2011 reduced to 8.7% of waste per tonne of concrete produced in 2008, 3.76 kg in 2009 and 3.60 kg in 2010. This resulted in 1.44 kg waste per tonne production being disposed of by landfill in 2011, compared with 5.42 kg in 2008.

Note: 2012 target of reducing waste to landfill by 10% is already being achieved.

RESOURCE USE - WASTE
1.024 m tonnes of cementitious materials were used per tonne of concrete produced in 2011, consisting of 0.01% fly ash, 4.07% ground granulated blast furnace slag, 4.9% quicklime, 4.6% limestone and 68.6% Class F/II. These figures are slightly worse than those reported in 2008 and 2009 due to changes in the product mix and improved accuracy of reporting.

Note: 2012 target of 2.5% cementitious material use is being achieved, at 2.8%.

Aggregates usage in 2011 showed little change from 2008, 2009 and 2010 with 0.81 tonnes of aggregates being used per tonne of concrete produced. The use of secondary aggregate remained similar to the 20.5% in 2008 at 19.7% in 2011.

Note: 2012 target of 25% recycled aggregate use is not quite being achieved, but close at 39.3%.

HEALTH & SAFETY
6.34 tonnes in 2011, or 0.72% of reported production was covered by an OSHAS 18001 UKAS certified health and safety management system in 2011, which is significantly better than the 2.4% reported in 2008.

Health and safety data is collected separately through the Concrete Targets 2015 scheme operated by British Precast. This HSE recognised scheme promotes improvement activities and sharing of information, both within companies and across the industry.

Over 7,185 employees in the industry were covered by the C1 2015 scheme in 2011. The estimated RIDDOR rate was 1.43 per 100,000 employees compared with 1.22 in 2009, 1.31 in 2009, 1.31 in 2008, 1.08 in 2007 and 3.92 for the base year of 2000.

EMPLOYMENT POLICIES INCLUDING TRAINING
5,237 or 98.08% of reported employees were covered by formal training and development policies in 2011, and an average of 12 hours of training was provided per employee. The coverage is higher than the 89.7% figure reported for 2008, the hours per person are similar to the 2.6hr reported in 2008.

Note: 2012 target of 5% increase in training is being achieved.