TO ALL SUSTAINABLE CONSTRUCTION PROFESSIONALS

CARES Sustainability Scheme enables sustainable procurement and construction

The rapidly increasing demand for greener buildings and infrastructure provides both challenges and opportunities in relation to the structural materials used, especially reinforcing steel.

Accurate, accessible and timely information on the environmental and social impact of using different materials is increasingly important for designers, contractors and procurers to satisfy green building rating systems. These systems award credits based on the environmental impact of materials and for materials responsibly sourced, aiming to encourage the use of materials with lower environmental impacts over their lifecycle, and to recognize and encourage the specification of responsibly sourced structural materials. The CARES Sustainability Scheme provides a means by which approved firms in the reinforcing steel supply chain are able to declare product and organisational level sustainability performance, and achieve credits in the green building rating systems such as BREEAM and LEED.

BREEAM is the UK’s most prominent green building rating system. The CARES Sustainability Scheme has been assessed, by BRE Global, against the requirements for responsible sourcing credits within BREEAM New Construction 2011 and has achieved entry into Tier 4 of Table 10-2 in the Mat 03 issue [Responsible sourcing of materials].

The key features and benefits of the CARES Sustainability Scheme are summarised as follows, with further details and endorsements of the Scheme available on the CARES website, www.ukcares.com.

- Full product traceability throughout the whole supply chain to production source and manufacturing process
- Independently validated carbon footprint data and an advanced EN 15804 Lifecycle assessment (LCA) calculator
- All firms in the CARES approved supply chain have a certified Environmental Management System to ISO 14001
- All firms in the CARES approved supply chain have a certified Quality Management System to ISO 9001
- Quality assured product to BS 4449, BS 4482, BS 4483 and BS 8666
The CARES Sustainability Scheme enables firms in the CARES approved supply chain to provide evidence to achieve the maximum number of credits against MAT 03 – responsible sourcing of materials – in the BREEAM 2011 green building rating system.

We strongly believe that independent accreditation by UKAS should be the means of demonstrating the competence, impartiality and integrity of the certification body. Indeed the conformity assessment policy [Conformity assessment and accreditation policy in the United Kingdom, April 2012] of the Department for Business Innovation & Skills (BIS) recommends “the use of UKAS accredited conformity assessment services whenever this is an option.” Consequently, we believe that it is appropriate to mention that CARES are the only certification body independently accredited by UKAS to the rigorous requirements of BS 8902 2009 - Responsible sourcing sector certification schemes for construction products.

CARES are committed to achieving the highest level of professionalism in the provision of third party certification services to maximise the value of the CARES sustainability scheme to all CARES approved firms, as well as users in this fast changing area.

Please do not hesitate to contact me should you require any further information.

Yours sincerely

Lee Brankley
General Manager
Annex 1: Key material credits in the green building and civil engineering rating systems

<table>
<thead>
<tr>
<th></th>
<th>BREEAM</th>
<th>LEED</th>
<th>CEEQUAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>Lifecycle impacts</td>
<td>MR 4</td>
<td>8.3.1 and</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>8.3.2</td>
</tr>
<tr>
<td>Mat 1</td>
<td></td>
<td>Recycled Content</td>
<td>Responsible</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Sourcing of Materials</td>
</tr>
<tr>
<td>Mat 3</td>
<td>Responsible Sourcing</td>
<td>MR 5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>of Materials</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Regional Materials</td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mat 1</td>
<td>Materials Specification (Major Building Elements)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mat 5</td>
<td>Responsible Sourcing of Materials</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Annex 2: Key features and benefits

**Product traceability (chain of custody):** The supply chain for reinforcing steel, which involves its production, distribution, processing and delivery to a construction site, is complex. It is important to recognise that steel used in construction projects may come from manufacturers based all over the world. It is vitally important that the suppliers of these steels are independently verified as being proficient and trustworthy, so that the use of material of dubious or unknown origin and hence unknown properties and performance is avoided.

CARES requires an unbroken chain between the steel producer and the construction site, thus enabling the local end-user to know the production source and manufacturing processes used. All reinforcing steels produced by approved firms are uniquely identified. When steel arrives onsite, no further testing is required, resulting in avoidance of undue and costly delays at the construction site.

**CARES Environmental Product Declaration (EPD):** Global Warming Potential (GWP) data can vary significantly depending on who prepares the data, what assumptions are made, what allocation methods used and where organizational boundaries are drawn.

The CARES Environmental Product Declaration (EPD) and Carbon footprint tools, were developed in partnership with industry and a global lifecycle assessment (LCA) company, PE International. The CARES approach addresses the above issues by providing a consistent basis to assess the Global Warming Potential associated with the production of either carbon or stainless reinforcing steel products from “cradle-to-grave.” That is, from the point at which raw
Compliance with BS 8902: The CARES Sustainability Scheme complies with and is accredited by UKAS (United Kingdom Accreditation Service) to BS 8902. This Standard provides a framework for the management, development, content and operation of sector certification schemes for responsible sourcing and supply of construction products.

By adopting the BS 8902 framework, CARES and reinforcing steel industry stakeholders have developed an objective and workable approach to the identification, collection, auditing and reporting of sustainable performance data.

Compliance with green building rating systems: The CARES Sustainability Scheme provides a means by which approved firms in the reinforcing steel supply chain are able to declare product and organisational level sustainability performance and achieve credits in green building rating schemes such as BREEAM and LEED. For example, buildings assessed using BREEAM are awarded credits according to their performance under the nine environmental impact categories, including materials, at the design stage and post construction stage. In particular, building materials are evaluated in terms of their lifecycle impacts like embodied carbon dioxide, global warming potential, responsible sourcing and full product traceability [chain of custody]. The percentage of available credits achieved under each category is then multiplied by a corresponding weighting and the nine weighted scores are summed to give a single overall BREEAM score. The building is then rated on a scale of 'Unclassified', 'Pass', 'Good', 'Very Good', 'Excellent' or 'Outstanding' according to a published scale.

The CARES Sustainability Scheme has been assessed, by BRE Global, against the requirements for responsible sourcing credits within BREEAM New Construction 2011 and has achieved entry into Tier 4 of Table 10-2 in the Mat03 issue [Responsible sourcing of materials].

Satisfying the UK Contractors Group (UKCG) responsible sourcing policy: All CARES sustainability approved reinforcing steel producers and fabricators are now recognised in a list of responsibly sourced products developed and distributed by UKCG, www.ukcg.org.uk. The UKCG is the primary association for contractors operating in the UK. UKCG represents over 30 leading contractors operating in the UK on construction specific issues. Between them UKCG members account for £33 billion of construction turnover which is a third of UK construction total output.
Annex 3: Endorsements from major clients and specifiers:

Crossrail
“Crossrail has engaged with CARES over the past 12 months as a way of ensuring that our tier 1 contractors have more options with regards to obtaining certified sustainable steel reinforcement. We are therefore delighted to hear that CARES Sustainable Reinforcing Steel (SRS) has achieved accreditation from UKAS against BS 8902: 2009 ‘Responsible sourcing sector certification schemes for construction products’. This is good for Crossrail and good for the industry.”

Mike de Silva, Crossrail Sustainability Manager.

Masdar
“CARES have a proven track record of assuring the quality of the product delivered via the CARES approved reinforcing steel supply chain and Masdar City contractors have used reinforcing steel from CARES approved sources. We are now working to further develop the CARES sustainable reinforcing steel scheme which includes determining the carbon footprint.”

Richard Reynolds, Manager – Supply Chain Consultancy, Masdar City.

Arup
“When we worked on the sustainability clauses for the National Structural Concrete Specification we were impressed by the enthusiasm of the construction industry to take on responsible sourcing. Sector schemes were needed to make this desire a reality and the CARES scheme meets this need. It is impressive in its breadth and detail and shows that responsible sourcing can be objectively practiced and demonstrated internationally. We are pleased the scheme will also fills gaps in data by the inclusion of carbon foot-printing. This will help us as designers.”

Sarah Kaethner, Structural Associate Director, Advanced Technology + Research, Arup