“Welcome to Portcullis House, Westminster”, was Tony Hansard, CRA Chairman’s welcoming remark to members at the Association’s 20th anniversary AGM, on Friday 10th October.

The AGM meeting launched a momentous week-end of celebration for the Association. In addition to meeting in the imposing ‘Thatcher Room’ at Portcullis House, officially part of the House of Commons, fifty-two Association members and guests also attended a tour of the Palace of Westminster and in the evening, a black tie dinner in the Churchill Room.

“Whilst this is a significant occasion for the CRA” commented Tony, “for many in the construction industry, 2008 has proved a difficult year. Fortunately, the repair and refurbishment sector of the industry has withstood the worst of the downturn, but winning business is becoming tougher and the industry may not have seen the worst of it yet. Let us hope that recent measures taken by government will release some extra liquidity into the economy”.

Despite the general downturn, the CRA has enjoyed a reasonably successful year. The Association continues to grow, is well respected in the industry and is financially sound. To name but a few of the significant developments, between July 2007 and June 2008 the Association replied to hundreds of requests for its BS EN 1504 advisory document; in conjunction with the Sprayed Concrete Association (SCA) and the Corrosion Prevention Association (CPA) the CRA set up a ‘Concrete Clinic’ at Civils 2008.
and will be at the event again in November. The Association has again presented many CPD presentations to Consultants and Authorities on the subjects of concrete repair and composite strengthening and the CRA Technical Committee is currently working on updates to the entire suite of Association advice notes. The new documents will begin coming on stream in early 2009.

AGM dinner

“I’d like to thank Gordon Brown for his assistance in helping organise this event... but I can’t. He’s rather busy with other things at the moment” began Tony Hansard’s speech.

“One man the Association genuinely has to thank, however, is Sion Simon, Labour MP for Erdington in Birmingham, who not only made arrangements for our tours and dinner here tonight, but also kindly arranged our AGM meeting room”.

“None of us would be here this evening if it were not for the concrete repair construction sector. As the diagram shows, all management systems, environmental systems included, will start with management commitment. If top managers are not committed the benefits that an organisation is able to derive from concentrating on their environmental effects, benefits will not be realised.

The next stage, shown at the centre of the diagram, is to undertake an initial audit or benchmark review against the ‘as is’ situation within the organisation. This initial audit stage will require the organisation to review its operations against the organisation’s environmental effects. These are different for different organisations and are likely to vary depending on:

- The responsibility for waste removal
- The types of services offered
- The preparation methods, e.g. grit blasting, chemical treatment, power washing etc
- The type of system and processes employed, e.g. single coat, 2 part, cathodic protection

This list is obviously not exhaustive, but at this stage it is also necessary to undertake a preliminary review of the current and future legislation and regulations that the company may have to comply with.

One objective of the review is to identify the 'significant' environmental aspects. At this stage we start in proceed clockwise around the diagram. Any significant aspects should be identified and the policy set, the route may have to comply with.

Environmental
OK, but what is the

There is obviously considerable debate around the issue of climate change and its causes, which often overshadow the bigger debate about how individuals, governments and companies might live and work more sustainably.

Essentially many believe (and I would count myself amongst them), that there is irrefutable evidence that concludes we need to live more lightly upon the earth.

Pressure is now being applied at the international level across the globe to make this happen. This results directly in increasing pressure from central and local governments and ‘blue chip’ organisations for them and their supplier base to improve their environmental performance. In fact, many organisations are now beginning to use environmental management systems as a means of excluding suppliers from potential contracts and the concrete repair construction sector is no exception.

NEW CRA INITIATIVES

The CRA is to ballot its members with regard to ensuring that all full member companies become BS EN 14001 accredited by July 2010.

The decision to comply with the Environmental Standard was taken at the Association’s recent general meeting, where the initiative was fully accepted by those in attendance. Provided the ballot receives an affirmative reaction, accreditation it will eventually become an essential requirement to full membership of the Association.

BS EN ISO 14001 specifies the requirements for an environmental management system (EMS), which provides a framework for an organisation to control the environmental impacts of its activities, products and services and to continually improve its environmental performance (see article opposite). It applies to those environmental aspects that the organisation can control and over which it can be expected to have an influence. It does not itself state specific environmental performance criteria.

BS EN ISO 14001 is applicable to any organisation that wishes to (1) Implement, maintain and improve an environmental management system, (2) Assure itself of its conformance with its stated environmental policy, (3) Demonstrate such conformance to others, (4) Seek certification/registration of its environmental management system by an external organisation and (5) Make a self-determination and self-declaration of conformance with this international standard.

DISTRIBUTORS
NOW FULL MEMBERS

The CRA has also accepted its Distributor members into full membership of the Association. All current and future Distributor member companies will therefore also have to meet the essential requirements of membership.

In addition to Distributors, the CRA represents the UK’s specialist concrete repair contractors, product manufacturers and associated organisations. Each full member company must demonstrate a proven track record and overall proven ability in this specialist concrete repair sector, be QA Accredited to BS 9000 and to conform to the Association’s Codes of Practice and Training requirements. By setting such self-regulating standards and procedures, engineers, authorities, clients and other specifiers are able to select from established professional organisations for concrete repair projects.

ENVIRONMENTAL
OK, but what is the

By: Mark Woods, Managing Director of Statius Management Services Ltd

The CRA CELEBRATES
20th ANNIVERSARY

Continued from page 1

the autumn of 1988, when the Concrete Repair Association was founded. Robert Jenkins became the new Association’s first Chairman. Others at this first meeting included John Fairley, (still the CRA Secretary), Mike Derby, Dave Pepperl, Graham Brown, Jamie Wimpenny, David Abraharts and Roland Tomlin. At the second meeting they were joined by notables such as Gerry Otter, Mark Tinchkell, Pat Quartzon and Jim Maker. Contractors actively involved in those early days included Wimpenny, Gunac, Hydra, Connaught, Stonemore, Lelliots, Balvca Whitney Moran, Makers and Delta Steeplesjacks.

The Association started life as a contractor-led organisation only, but as early as its second year, invited manufacturers into full membership. “Twenty years on” said Tony “Contractors, manufacturers and specialist distributors all now play their part within the association”.

He welcomed some of the past Chairman in attendance and ran through the role of honour for the 20 years. “Following the first Chairman, Robert Jenkins, Graham Brown took over in 1991. He was followed by Jim Maker. In 1994 Chris Martin took the reins and then, for a brief spell Pat Mc Ardle took office. This was followed by a 3-year period by Mike Gibb. The new millennium saw Bob Berry as Chairman and Tom McCulloch became the CRA’s first Scottish Chairman in 2002. He was followed soon after by Mike Hackett and more recently by Andrew Muirhead, followed last year by yours truly”.

“So much for the history of the CRA”, he said, “I would now like to wish the Association continued success over the coming years”.

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CRACKING MATTERS - The Journal of the Concrete Repair Association

CRACKING MATTERS

L MANAGEMENT procedure?

• Monitoring and control activities. Some activities won’t necessarily need improving but they will need monitoring, simply to ensure that they don’t get any worse. In most cases activities that need to be controlled will already be occurring; for instance dust control and noise control (there is sometimes a bit of crossover between environmental and health and safety issues).

• Process and procedure development. For those companies that have an ISO 9001 system there is a lot of cross over too. It is usually necessary to update many of the ISO 9001 process and procedure documents; for instance purchasing as a policy to source more environmentally friendly products is perhaps included; plant and equipment might now be maintained with a view to reducing environmental effects and so on. As the induction processes modified to make new staff aware of the importance of environmental considerations.

• Emergency planning. Potential emergencies need to be identified so that plans are drafted to ensure the appropriate response is developed; emergencies might include accidental discharges to water or air or specific environmental and eco system effect of these.

• Training. It is necessary to ensure that all staff are fully aware of their environmental responsibilities. Companies link this with how they manage job descriptions, competencies and appraisal.

Once the implementation activities have taken place and environmental improvement can be demonstrated, an audit will be required to check that the system is functioning as intended, that objectives and targets are being met and that significant impacts are being reduced.

The results of the audit are then fed into the management review process where a view is taken on how well the whole system is functioning and the process starts again. This time it is obviously not necessary to conduct the initial audit but management commitment will be required to update the significant aspects and the associated policy.

Managed properly, robust environmental management systems offer a number of advantages:

• Significantly reduced risk of environmental litigation, fines and even imprisonment arising from non-compliance.
• Improvements in productivity, waste management and pollution prevention.
• Decreased energy costs
• Enhanced image.

In one independent study conducted by Aspects International, respondents confirmed that organisations had:

• Improved market share 80%
• Improved financial performance 60%
• Improved legal compliance 81%
• Improved customer satisfaction 78%

Achieved Payback in one year 60%

Not bad! In addition to contributing towards living a little more lightly on the earth, the exercise is proving beneficial from a business and company profile point of view.

ENQUIRY NO: 2201

Notes from Ed:

1. The CRA has agreed that all its members should work towards achieving ISO14001 by 2010 – see article on page 2
2. Status Management Services Ltd is a consultancy practice specialising in raising standards and optimising organisational performance.

Continued on page 4

FRP - NOW THE PREFERRED STRENGTHENING METHOD

FRP composites can be used for a variety of strengthening schemes including increased load capacity, fire damage, blast containment, physical damage, change of use and for structural alterations. The minimal dead load, durability and speed of installation makes FRP composites the preferred material choice for structural strengthening.

Over the past decade CRL has completed many contracts both in the UK and overseas involving a variety of composite strengthening techniques to suit the needs of concrete, steel, cast iron and masonry structures.

CRL provides a comprehensive design/installation package and is an approved contractor for the leading material suppliers.

Tel: 020 8288 4488 www.concrete-repairs.co.uk

Industrial Developments

Use the enclosed Reader Enquiry form to obtain more information

FRP - NOW THE PREFERRED STRENGTHENING METHOD

Specialist main contractor Concrete Repairs Limited (CRL) has just produced a brand new brochure on the subject of structural strengthening using Fibre Reinforced Polymer (FRP) Plates.

FRP composites can be used for a variety of strengthening schemes including increased load capacity, fire damage, blast containment, physical damage, change of use and for structural alterations. The minimal dead load, durability and speed of installation makes FRP composites the preferred material choice for structural strengthening.

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ENQUIRY NO: 2202

CONTRIBUTIONS REQUESTED

As most construction professionals will know, attempting to pre-determine the depth and area of cracking before breaking out is complete, is not a precise science. This, in turn, makes it difficult to accurately quantify the volume of work and time needed to complete a concrete repair project.

Given this scenario, Bills of Quantities can only be regarded as approximate, with the accuracy of the quantities depending upon the degree of initial survey, sampling and other test data available prior to the contract documents being produced. It is only following a thorough assessment of the extent of structural deterioration, as well as accurate diagnosis of its causes, that a true quantification of concrete repair work is possible. This, however, continues to be a notoriously difficult area of construction measurement.

It was to assist the origination of clearer Bills of Quantities for concrete repair work that the CRA originally produced in its now well established ‘Standard Method of Measurement for Concrete Repair’. The detailed 44-page document is specifically devised and structured to provide a uniform method for measuring concrete repair and for fully itemising all aspects of the work involved.

The document has proved of enormous benefit to construction professionals over the past decade and has been used by thousands of contractors and many more to continue to be downloaded from the CRA website. It deals with the measurement of surface cleaning; surveying; concrete repairs; crack repairs; poreflow hole fillers; levelling mortars/fairing coats; concrete coatings; rubber and resin injection techniques and many more items to enable the provision of access and site facilities and includes a useful specimen Bill of Quantities.

Like all documents, however, new and modern methods, practices and standards make it necessary to review the content in order to bring it in to line. This task is currently being taken on board by the CRA’s Technical Committee, who has suggested that users of the document may wish to update. They will, as all the comments, be aware any shortcomings and/or where the document could be improved.

If you have any comments to make, please contact Trevor Box. CRA Technical Chairman, at Trevor.Box@birmingham.ac.uk or alternatively via the CRA office at Tounar Hall, Evelyn Woods Road, Aldershot GU11 2LJ. Tel: 01252 357835. Fax: 01252 357831. Email: admin@cra.org.uk

Are you aware of the Site Waste Management Plans (SWMP) Regulations 2008?

SWMPs came into force in early April 2008 and will be enforced by the Local Authorities and the Environment Agency. Whilst they aim to reduce the amount of waste produced on construction sites and prevent fly-tipping, they should also result in improved resource efficiency in the construction industry and a reduction in site accidents.

So, what are the implications?

SWMP Regulations will affect the following:

• Anyone planning a construction project costing more than £300,000 (total value of materials and labour)
• Any construction project clients or architects that produce, manage or dispose of waste
• Suppliers to the construction industry
• Environmental regulators, i.e. Local Authorities and the Environment Agency.

There are two levels of SWMP:

• The ‘Basic’ level involves projects costing between £300,000 and £500,000 and the ‘Detailed’ level, which affects projects costing over £500,000.

One individual, usually the principal contractor, is responsible for writing and implementing the SWMP and penalties will be imposed for failure to make, keep or produce one. If a project is started without a SWMP, the person in charge of the project and the principal contractor (if there is a contractor) are both guilty of an offence.

Fixed penalties may be issued for the failure to produce a SWMP; although a person (or in the case of a Company, a Director, Manager, Secretary, or similar) if found guilty of any offence under the SWMP Regulations, is liable to a maximum of 2 years in prison, a fine, or both.

SWMPs should contain the following information:

• Details of the person who drafted it
• Details of the person in charge of the project
• The principal contractor (if there is one)
• Description of the construction works, including the location of the site and the estimated value of the project
• Records of any decisions made to minimise the quantity of waste produced on site
• Description and volume of each waste type produced during the course of the project

So, what are your responsibilities?

• Details of the re-use, recycling, recovery or disposal of each different waste type
• Declaration that each person in charge of the project and the principal contractor will take all reasonable steps to ensure that all waste is dealt with in accordance with the Duty of Care and all materials will be handled efficiently and waste managed appropriately.

When updating Standard SWMPs (for projects costing between £300,000 and £500,000), whenever waste is removed from the site, the principal contractor must record:

• The identity of the waste management contractor removing the waste
• The types of waste removed
• The site that the contractor is taking the waste to.

Within one month of the work being completed, he must add to the plan:

• Confirmation that the plan has been monitored on a regular basis to ensure that work is progressing according to the plan
• A description of any changes in circumstances that required a revised SWMP

When updating Detailed SWMPs (for projects costing in excess of £500,000), whenever waste is removed from the site, the principal contractor must record:

• Details of the re-use, recycling, recovery or disposal of each different waste type
• Details of the waste management contractor removing the waste
• A copy of, or reference to, the waste carrier registration of the carrier
• A copy of, or reference to, the duty of care transfer note.

In addition, the principal contractor must update the SWMP to ensure that it accurately reflects the progress of the project. At least every 6 months, he must:

• Review the plan
• Record the types and quantities of waste produced
• Record the types and quantities of waste that have been re-used or disposed of on/off site, recycled on or off site, sent to a recycling facility or sent for disposal
• If necessary, produce a further plan making changes to reflect the progress of the project.

Within one month of the work being completed, he must add to the plan:

• Confirmation that the plan has been monitored on a regular basis to ensure that work is progressing according to the plan

Use the enclosed Reader Enquiry form to obtain more information
In order to prevent further deterioration of the facade, an ICCP system was installed in the decorative cladding. These were not only for safety, but also to prevent corrosion of the steel frame members, including cracking and displacement of the concrete surfaces, including beams, columns, soffits and fascias. Cemplas, who were responsible for the repair, used traditional hand placed, high-build, mortar repairs, resin injection to cracks, render repairs with modified sand and cement mixes and the application of a protective coating, 

To solve the problem of severe water ingress, more than 1500 square metres of the external surface area at Foster Wheeler’s premises in Reading, Berkshire, have been treated with a liquid applied resin waterproofing system. The plaza, part of the building’s main structure, also acts as a roof for the car park facility located directly below. To solve the problem, Foster Wheeler chose Kryton Chemicals’ ImpermaSeal waterproofing system. The four types of recycled crushed stone are used as aggregate for the concrete substrate prior to the application of two layers of ImpermaSeal. The final 3mm thick membrane was further protected through the installation of a penetrable, before the block paving was reinstated. 

Mortars manufactured by Cemplas, one of their specialist members, have helped revive the iconic 1930s Art Deco Hotel in Minehead, which was originally designed by Oliver Hill and recently renovated by Urban Splash. The concrete frame was repaired with BesoFast fast curing mortars, thecorroding steel protected with a corrosion inhibitor and the entire facade rendered with a bespoke glass render system. The render also contains a waterproofing agent which provides long term protection from driving rain and yet gives the appearance of the original mummified cat is buried in a glass domes and minarets. A 3,000 year old pyramid, including cracking and displacement of the decorative cladding. These were not only for safety, but also to prevent corrosion of the steel frame members, including cracking and displacement of the concrete surfaces, including beams, columns, soffits and fascias. Cemplas who were responsible for the repair, used traditional hand placed, high-build, mortar repairs, resin injection to cracks, render repairs with modified sand and cement mixes and the application of a protective coating, 

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