

PRESS RELEASE

Brownfield Briefing Remediation Innovation Awards 2006

Winning entries

The second annual ***Brownfield Briefing Remediation Awards***, were presented last night by Eاون Hall, Chief Executive of The Land Restoration Trust last night at a celebratory dinner at BAFTA head quarters in London.

The Awards aim to recognise best practice in remediation and use of remediation technology throughout the UK. The Awards were divided into three categories of remediation, assessing the best use of biological, chemical and combined treatment, plus conceptual design work with a separate Award for the most innovative method.

Overall sponsor was Augean plc, with the Award for the best chemical system sponsored by National Grid and the Award for the best innovative remediation method was sponsored by NHBC. The event was supported by RICS and IEMA.

All entries were judged by an independent panel which included experts from both industry and academia.

Below is a list of the winners and their entries. Full details of the winning entries and short listed projects are detailed in the winner's brochure which can be downloaded from the link below:

<http://www.brownfieldbriefing.com/download/BB Awards2006Winners.pdf>

THE WINNERS WERE:

1. Best use of Bio Systems

Biogenie Site Remediation and Biffa Waste Services for their Risley Soil Treatment Facility

A strategic alliance between Biogenie and Biffa has enabled the development and operation of the UK's first fixed soil treatment facility, which opened in Risley, Warrington, in November 2005. The facility represents the first example in the UK of a truly innovative approach to the problem of hazardous soil disposal. It achieves significant reduction of pollution, with treated soils put to good use; is cost effective compared to disposal to landfill; has achieved community acceptance via the planning process and enables the fast redevelopment of brownfield sites.

What the judges said about this project:

"Soil treatment centres have been talked about for donkey's years – to see them finally coming through is a significant step forward"

"Excellent use of landfill gas is the finishing touch to the design and operation of such a significant treatment centre"

"A very positive element to this project is that the treated material is used for progressive rehabilitation of the site"

2. Best use of chemical systems – sponsored by National Grid

A joint submission by May Gurney & Hyder Consulting for the regeneration of Newlyn Harbour

May Gurney Ltd and Hyder Consulting applied an ex-situ stabilisation/solidification (s/s) solution to deal with heavy metal contamination in the bed of Newlyn Harbour to enable the construction of a series of floating pontoon moorings to facilitate safe berthing at the harbour. The cost-effectiveness of the treatment selected meant that the project was able to go ahead; the reuse of treated materials has meant that pollution has been reduced without generating waste; and treatment has been carried out according to best practice techniques. In order to build the new facility, dredging of the harbour bed and the treatment of the contaminated silts found there was required. The contamination is thought to have arisen through the use of organic tin compounds (TBT) in anti-fouling paints applied to boat hulls.

The judges' comments

"This represents a remediation solution spawned from the limitations of the Landfill Directive –and that is good news"

“Stabilisation has been around for a while but what is really positive in this instance is that all the work was staged on site, offering a total solution within one location”

3. Best use of combined treatment systems

Southern Testing for their Tunbridge Wells Gas Works

Southern Testing was the clear winner for this category – judges acclaiming:

“This project demonstrates tremendous collaboration. It was homogeneous and well managed, bringing benefits off site as well as on site”

“Two tried and tested technologies brought together in a best practice manner... a well presented submission which gives due credit to those who actually carried out the remediation”

The project was achieved of budget, on schedule and with an unprecedented degree of partnering between those carrying out the works. It achieved significant reduction of pollution and the reuse on site of over 99% of the 40,000 tonnes of treated soil. The 4ha site, purchased by Barratt Homes (Kent) for residential redevelopment in 2004, contained elevated levels of hydrocarbon contamination resulting from the site’s previous use for gas production – PAHs, TPH and BTEX compounds. The site is underlain by Wadhurst Clay, overlaid by made ground. Local contamination of ground-water was also discovered, in particular in the northern areas of the site where a gas holder station remained.

4. Best conceptual design

Jacobs Baktie for the Avenue former coking works, Chesterfield

Jacobs Baktie’s entry for the Avenue former coking works and chemical plant in Chesterfield is regarded as one of the worst single point sources of pollution in the UK. Historic operations at this now derelict site left waste lagoons containing 200,00m³ of tar and contaminated sediments, a 350,000 waste tip and over 700,000m³ of adversely impacted soils, resulting in gross contamination of the adjacent River Rother. Clean-up of the East Midlands Development Agency-owned site is being funded to the tune of

£104m via English Partnerships' National Coalfields Programme. Jacobs Babbie, appointed as engineering consultants, have engaged in extensive preparatory work which has led to the acceptance of a remediation strategy in 2005/2006. This sustainable conceptual design minimises waste disposal, advocates a risk-based approach to material recovery and champions on-site treatment. It engages a wide variety of treatment technologies, and has found a solution to the problem of contaminated lagoons, enabling the reuse of soil that would otherwise have been landfilled.

The judge's comments on this project were:

"Soil treatment centres have been talked about for donkey's years – to see them finally coming through is a significant step forward"

"Excellent use of landfill gas is the finishing touch to the design and operation of such a significant treatment centre"

"A very positive element to this project is that the treated material is used for progressive rehabilitation of the site"

5. Most innovative remediation method – sponsored by NHBC

Wrekin Construction for their Northwich Salt Mines Stabilisation Scheme

The Wrekin entry was for a £32m remediation project involved the infilling of four abandoned brine-filled salt mines to ensure the future stability of Northwich town centre. It is the largest project of its kind in the world, with 850,000m³ of void to be filled at depths of 90m below ground, releasing 32ha of surface land. As such, it could have caused significant environmental impact and disruption to the town. But the solution engineered by the project team minimised disruption and achieved strong buy-in from the local community. It represents a complete solution that will enable regeneration of the town; it shows genuine novelty and a significant technological advance; sustainability and cost effectiveness is ensured through the use of waste and recycled materials; and close attention was paid to health and safety. The project is funded by English Partnerships' Land Stabilisation Programme, project managed by Vale Royal

Borough Council, and undertaken by Wrekin Construction, assisted by consultants Arup.

Judges comments....

“A wonderfully delivered project”

“This project went out of its way to secure tremendous community endorsement”

THE RUNNERS UP WERE:

Best use of bio systems

URS Remediation of former resins manufacturing facility

URS Corporation was engaged to develop a remedial solution that would enable the resale for residential development of this 16ha former resins factory, operational from the 1950s until 2001. The site required remediation of soil and groundwater contamination comprising xylenes and trimethylbenzenes. The project demonstrated a cost-effective, long-term remediation solution; significant reduction of pollution; concern for community acceptance and intelligent use of GIS systems.

Best use of chemical systems

tcm Trifounder Fields Remediation, Aberdare

This project achieved the eradication, within a single growing season, of a Japanese Knotweed infestation across a 17ha development site. It demonstrated a high degree of innovation and cost effectiveness; it removed the pollution without giving rise to any waste; and won community support by enabling the prompt redevelopment of the site.

Best conceptual design

AIG – Thermally enhanced SVE

In this first application of conductive thermally enhanced soil vapour extraction (SVE) in the UK, AIG Engineering Group, carrying out a field-scale evaluation for the UK Atomic Energy Authority, has demonstrated that heating contaminated ground significantly boosts removal of VOC contamination compared to conventional SVE. The project represents a significant technical advance and can be utilised for a wide range of

contaminants in a wide variety of situations – timescales are reduced, a greater volume of contaminants is removed and the risk of residual ‘bounce back’ is also removed.

DEC NV – Transformation of Acid Tars, Belgium

To date, solutions to acid tars have either come at high cost (incineration) or been shown to be unsuitable over the long term (lime stabilisation). This project, in Belgium, involved the development by DEC of a technology based on relatively simple solidification and stabilisation techniques to transform the acid tars into an inert solid product, which can be safely stored and is insensitive to climate interactions such as frost or rain. DEC has applied the solution to treat three large acid tar lagoons near the Port of Ghent; the project is ongoing and 50,000m³ of acid tars have been treated to date.

Most innovative remediation method

Longbore TT Glyncastle Minewater Remediation

Longbore was appointed by Atkins (on behalf of the Coal Authority) to design a directionally drilled bore to enable the interception and capture of contaminated minewater in the Neath Valley. Longbore’s work produced a cost-effective and innovative gravity-based solution. Water levels within the collapsed Glyncastle colliery began to rise after a collapse in the adit in 1994; waters began to escape, resulting in pollution to the adjacent brook and river. Longbore likened the nature of the discharges to an overflowing bath; its solution was to drill up into the lowest point of mine workings from the valley below and let the water flow out, effectively pulling the plug out of the bath – a system that required negligible operating costs compared to conventional vertical wells. The system was required to control minewater flow (to ensure it did not drop too far and allow air into the mine shafts). It was however necessary to contain water pressure throughout drilling or the entire mine risked discharging. Longbore’s solution was to cement a surface casing into the bedrock, onto which was bolted a series of gate valves and nitrile snubbing units designed to allow the various drilling and hole assemblies to be run in and out of the well while maintaining circulation and pressure control over the drilling fluids and minewater.

The ***Brownfield Briefing Remediation Innovation Awards*** for 2007 will be held on 18th September with calls for entries announced some time in May 2006.

For more information on the *Brownfield Briefing Remediation Innovation Awards*, please contact Anna Cairncross, Head of Marketing

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Notes to Editors

The judges were:

- Clive Boyle, Vice Chair Environmental Industries Commission (EIC) Contaminated Land Working Group
- Dr John Campbell, formerly RioTino (retired) and member of CL:AIRE Technology and Research Group
- Philip Crowcroft, Partner, Environmental Resources Management (ERM).
- Prof. Stephan Jefferis is a director of Environmental Geotechnics Ltd and Cybersense Biosystems and part-time Professor in Civil Engineering at the University of Surrey
- Prof. David Lerner, Professor of Environmental Engineering at the University of Sheffield and member of CL:AIRE Technology and Research Group
- Dr. Gordon Lethbridge, New Technology Development Manager for Contaminated Land in Shell Global solutions and chair of CL:AIRE Technology & Research Group
- Mike Summersgill, Technical Director, SEnSe Associates LLP and member of CL:AIRE Technology & Research Group, chair of BBRIA judging panel
- Toby Uppington, Principal Environmental Consultant, URS Corp

About the sponsors

Augean plc

<http://www.augeanplc.com>

Augean is one of the UK's market leaders in the management of hazardous waste, providing advice and cost-effective solutions to UK businesses' waste problems. They

work in partnership with clients to provide long-term answers to the treatment and disposal of their waste.

Augean currently own more than 10 million cubic metres of void space and a hazardous waste treatment facility. Principle wastes include: construction and demolition waste, such as contaminated soil; electronic waste, such as, computer monitors and televisions; industrial waste, such as solvents and paints and residues from other waste treatments, such as ash from incinerators.

National Grid Property Ltd

<http://www.nationalgrid.com>

National Grid Property Ltd manages National Grid's UK estate by reducing historic contaminated land liability, returning brownfield sites back to beneficial use and by providing a professional service to occupiers. We're committed to the introduction of alternative technologies to enable recycling and in 2005/06 re-used 64% of material excavated during our remediation projects.

NHBC

<http://www.nhbc.co.uk>

NHBC is the standard setting body and leading warranty and insurance provider for new and newly converted homes in the UK. Our role is to work with the house-building and wider construction industry to raise the standards of new homes and to provide consumer protection to new home buyers. Since 1999, the NHBC Standards have included the assessment of Land Quality covering both geotechnical and contamination issues aimed at ensuring residential sites are adequately assessed and properly remediated.

About Brownfield Briefing

<http://www.brownfieldbriefing.com>

Brownfield Briefing is the leading news service on all aspects of brownfield development and the implications for business. Providing comprehensive coverage, expert analysis and authoritative comment from key figures in the industry, it also reports on planning, waste and legal issues. Published by independent publisher

Newzeeye Ltd, Brownfield Briefing also runs a number of specialist conferences throughout the year. Brownfield Briefing is the definitive resource for professionals involved in previously developed land.

About Newzeeye

<http://www.newzeeye.com>

Newzeeye is an independent information service provider in the fields of brownfield regeneration, climate change, energy, property development, high-tech start-up companies and innovation policy.

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