Management of Air Pollution Control Residues - Focus on Cement-based Stabilisation/Solidification

24 November 2008, London

Air Pollution Control (APC) residues arise in cleaning of gaseous emissions from a variety of industrial processes. While many APC residues can be recycled or re-used, others contain mixed metal contamination, or have other characteristics of environmental concern and require treatment before land disposal.

In this context, stabilisation/solidification with cement-based binders (S/S) is often considered. Some industry practitioners are still sceptical about S/S, particularly about the long-term performance of treated materials, and how S/S of wastes such as Municipal Solid Waste Incineration (MSWI), APC residues and Electric Arc Furnace (EAF) dust compares with other management options.

The aim of this workshop is to help delegates resolve some of the above problems. This event will also present delegates with information that has been gathered from the TSB funded ProCeSS* project which aims to develop 'process envelopes' (or 'operating windows') for generic S/S of a range of commonly found UK residual waste, including:

- MSWI APC residues
- EAF dust
- Metal treatment sludges
- Contaminated soils.

This event will examine options for managing MSWI APC residues and EAF dust and introduce the ProCeSS Screening Protocol for S/S. It will also provide a forum for discussion of related issues amongst practitioners, regulators and local authorities.

A second workshop will be held in 2009, to discuss these issues for the other ProCeSS waste types (metal treatment sludges and contaminated soils).

Venue

CIRIA

Classic House

174-180 Old Street

London, EC1V 9BP

Course fees

£80 + VAT (£94.00)

CPD CERTIFIED Construction CPD Certification Service

CPD

CIRIA recommends this workshop for 3.5 hours towards CPD requirements with the ICE, CIOB, RIBA & RICS, CIBSE, IstructE.

Programme

10.30 Registration , tea and coffee

11.00 **Introduction to Stabilisation/Solidification (S/S) and ProCeSS, Julia Stegemann, University College London**

Julia will introduce the basic concepts of hazardous waste treatment by S/S and the ProCeSS project.

11.20 **Introduction to Municipal Solid Waste Incinerator (MSWI) Air Pollution Control (APC) residue management options, Chris Cheeseman, Imperial College London**

Chris will talk about how MSWI APC residues can be managed, highlighting the effectiveness and cost of the different options.

11.45 **Defra-funded Characterisation of Cement-Stabilised MSWI APC residues, Kathy Lewin, WRc**

Kathy will present findings of Defra-funded characterisation of cement-stabilised APC residues, including performance against the waste acceptance criteria for hazardous monolithic wastes (monWAC).

12.10 **Introduction to ProCeSS screening and extended testing protocols, Dr Julia Stegemann, University College London**

Julia will explain the approach taken in the ProCeSS project to test the performance of wastes treated by S/S and develop performance envelopes.

12.30 Lunch

13.30 **S/S of MSWI APC residues, Chris Cheeseman, Imperial College London**

Chris will present the results of the Imperial College experimental programme to develop a process envelope for S/S of MSWI APC residues.

13.50 **Plasma treatment of APC residues, David Deegan, Tetronics**

David will talk about the advantages and disadvantages of treatment of APC residues using plasma vitrification at temperatues above 1400^{O}C.

14.15 **Introduction to Electric Arc Furnace (EAF) dust management, Kevin Linsley, Corus**

This presentation will discuss how EAF dust is generated and summarise the effectiveness and cost of the different management options.

14.35 **S/S of EAF dust, Marta Pellizon Birelli, University of Surrey**

Marta will present the results of the Surrey University experimental programme to develop a process envelope for S/S of EAF dust.

15.00 Panel discussion

15.30 Close

CIRIA sharing knowledge building best practice

Booking form Management of APC residues (E8411)

Management of Air Pollution Control residues - focus on cement-cased Stabilisation/Solidification
24 November 2008, London (E8411)

Contact name: _____

Email address: _____
Confirmation details will be sent by email.

Company name: _____

Position: _____

Address: _____

_____

Post code _____

Telephone: _____ Fax: _____

Payment method - (£80 + VAT = £94)

I enclose a cheque for _____ payable to CIRIA.

Please charge my Mastercard ☐ Visa ☐ Amex ☐

Card No. ☐☐☐☐ ☐☐☐☐ ☐☐☐☐ ☐☐☐☐

Security code: ☐☐☐☐

The last 3 digits (Amex 4) of the number printed on the signature strip.

Expiry date: ☐☐ ☐☐

Cardholder's name as shown on card: _____

Date: _____ Cardholder's signature: _____

Please photocopy this form and fax it to our Events team on +44 (0)20 7253 0523
or mail it to CIRIA, Classic House, 174–180 Old Street, London EC1V 9BP

TERMS AND CONDITIONS

Any booking fee paid will not be refunded unless written confirmation is received at least five working days before the event, substitute delegates are welcome.

*For non-member registrations, your place is confirmed once the registration form is submitted; bookings must be accompanied by payment in the form of cheque or credit card authorisation.

Email confirmation of your booking will be sent out by CIRIA two weeks before the event.

CIRIA reserves the right to vary the programme and cancel the event in case of insufficient bookings.

Personal data is gathered in accordance with the Data Protection Act 1998. CIRIA will only contact you about products and services relevant to you and your organisation ☐

*Acknowledgements**

The ProCess project is co-funded by the UK Technology Strategy Board's Collaborative Research and Development programme, following an open competition, and is led by University College London, with the participation of 21 partners from academia (Imperial College London, University of Surrey, University of Cambridge, Birkbeck University of London), and industry (British Cement Association, The Concrete Centre, UK QAA, CSMA, British Lime Association, Elkem Materials, Surface Engineering Association, SELCHP, Corus, Veolia Environmental Services, Grundon Waste Management, Sita UK, Scott Wilson, May Gurney Ltd, White Young Green Environmental, CIRIA and WRc). The project website is at http://www.cege.ucl.ac.uk/process. The Technology Strategy Board is an executive body established by the Government to drive innovation. It promotes and invests in research, development and the exploitation of science, technology and new ideas for the benefit of business - increasing sustainable economic growth in the UK and improving quality of life. For more information visit www.innovate-uk.com

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building best practice