

Contaminated Land: Novel Techniques for Measuring Harmful Substances

23 November 2011, BRE, Watford, UK

Event Programme

Chairman – Dr Jeff Llewellyn, BMTA Chief Executive

09.15 Registration and Coffee

09.45 Chairman's Opening Remarks

09.50 Innovative Geochemical Techniques

Dr Jamie Cutting, Chemtest

The measurement of hazardous substances in contaminated media plays a fundamental role in the site characterisation process. The results of chemical analysis are used to inform conceptual site models and enable the quantification of risk, but are there other complementary techniques available that can also help? In this presentation we will explore what other useful techniques are available in order to provide better problem definition and greater confidence in the evaluation of risks arising from contaminated land.

10.30 Sample Integrity – effective sampling of soils and waters from contaminated land sites

Hazel Davidson, Technical Marketing Manager, ALcontrol Laboratories

Correct sampling procedures are critical to ensure data from soils and waters is as meaningful as possible – this covers sampling frequency, representativeness of samples, correct sample containers, storage and preservation, an awareness of holding times, and the importance of storage temperatures. This has become more important over the last year, as UKAS now require any deviating samples (not complying with good practice) to be highlighted in analytical reports as possibly affecting the integrity of the data. This presentation discusses these issues and provides best practice advice.

11.10 Coffee and Table Top Exhibition

11.30 Proficiency Testing of Bulk Waste Gamma Radioassay Procedures at Nuclear Sites

Julian Dean, Senior Research Scientist, NPL

Nuclear facility decommissioning in the UK in recent years has generated very large volumes of potentially radioactive wastes (e.g. building materials and laboratory wastes) all requiring assay for waste categorisation and disposal. This has led to a need for calibration standards and other services to ensure that such measurements are accurate. In response, NPL has run two voluntary 'Nuclear Industry Proficiency Test Exercises' (2007 and 2009) for laboratories who routinely measure gamma-emitters in 200 L drums and other large package types. The background to the exercises and some selected results and conclusions are described, and an update on a third exercise (2011) is given.

12.00 Radon: Recent Findings and Future Concerns

Chris Scivyer, Principal Consultant, BRE Building Technology Group

Chris will look at recent findings from BRE involvement with Radon awareness campaigns in different areas of the UK. Secondly he will consider how refurbishment of existing buildings to meet energy efficiency targets could result in increased indoor radon levels, and how to turn a problem into an opportunity.

12.30 Discussion

12.45 Lunch and Exhibition

14.00 MCERTS Soils and the newly published BS10175 Code of Practice

Paul Greenwood, UKAS

With the introduction of Standard code of practice BS10175 (Investigation of potentially contaminated sites – Code of practice) in March 2011, UKAS now has a framework around which the SAMPLING of soils on contaminated sites can be assessed for subsequent accreditation as a testing activity.

The MCERTS (soils) Standard has led to significant improvement in the analysis of samples from contaminated land but does not deal with sampling, whereas the MCERTS (waters) Standard which came into effect in June 2010 includes a requirement for all samples to be taken under accreditation.

The aim of this presentation is to outline the potential benefits of accreditation to the practice of soil sampling and will include examples of the experience that UKAS has gained during its implementation of the accreditation of sampling in support of the MCERTS (waters) scheme.

14.40 New research on remediating and mitigating risks from VOCs

Pamela Welburn, Principal, ARCADIS (UK) Limited

Following on from the CIRIA VOC Handbook on investigating, assessing and managing risks from inhalation of VOCs at land affected by contamination, CIRIA and ARCADIS are preparing the first UK guidance on VOC mitigation and remediation. This presentation will give an overview of the research project and the key steps to the development of an effective remediation strategy.

15.20 Tea Break

15.30 Measurement of volatiles for the assessment of risks of inhalation exposure at contaminated sites

Derrick Crump, Director, Institute of Environment and Health

An important aspect of risk assessment of contaminated sites is the evaluation of whether a significant pathway exists for inhalation exposure of contaminants. Volatile organics can be of concern and exposure of people may occur through inhalation of ambient air but often of greater concern is the possibility of ingress of vapours into buildings and exposure of people in indoor environments. This presentation gives examples of such studies, outlines available guidance on measurement methods and reports on a current research project seeking to improve methodologies available.

16.00 Sampling, measurement and analysis of VOCs; what are the best tools for the job?

Nicola Watson, Environmental Specialist, Markes International

Many techniques are available for the sampling and measurement of VOCs in air, but which ones are the best to use? Sorbent tubes are very versatile and depending on the sampling situation various techniques can be used to retain VOCs on the media; diffusive (passive) and pumped (active) sampling. There is no one correct method but rather the use of a range of sampling methods which will give the best overall picture. The talk will discuss the options available for sampling a variety of VOCs in a range of sampling situations and the advantages of each technique, including the latest developments in analysis and detection of VOCs.

16.30 Closing Discussion and Chairman's Summary

16.45 Close

The organisers reserve the right to amend the programme if necessary

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Booking Form



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