



Continuous Ground-Gas Monitoring, Risk Prediction and Management

London Local Authority Officers/Regulators Training

Date: Thursday 24th September 2009

Venue: Wallace Space, (St Pancras) 22 Duke's Road, London, WC1H 9PN

Objectives: This training module is designed to provide delegates with an understanding of and ability in continuous ground-gas monitoring, risk prediction and management. Best practice and the latest techniques available will be discussed together with key information requirements to inform options appraisal and the process of implementation and verification.

It is aimed at individuals that have a general understanding of ground-gas issues, who wish to enhance their competency in line with the latest research and industry developments.

Facilitators for the day will be Simon Talbot (GGS), John Naylor (GGS) and Dr Peter Morris (UoM). Simon has over 25 years experience in contaminated land and ground-gas monitoring and risk assessment, ten of these years working for local authorities as Director of GMGU. John has over 10 years professional experience in contaminated land matters and, as a former LA regulator, has a particular specialist interest in ground-gas and landfill gas investigation, assessment and remediation. Dr Peter Morris has been working as a research associate at the University of Manchester for the past 4 years. His background is in studying environmental systems and identifying the dominant mechanisms and processes for aqueous and gaseous phase transport. For the past 2 years he has been using the GasClam to understand the subsurface gas regime in a range of situations and develop tools to improve risk assessment.

Programme

09:15 **Registration**

09:30 **Introduction – Simon Talbot**

- Includes history of the subject, basic concepts of ground gas production, diffusive and advective migration, pressure differential drivers and brief construction characteristics of receptors

10:00 **Guidance documents and regulatory aspects – John Naylor**

- Includes development of guidance, current guidance documents, including CIRIA 665, NHBC 2007, CIEH 2008 and BS8485 in relation to both regulatory control of new development and thoughts on Part 2A regulation.

10:30 **Tea & Coffee**

- 10:45 **Monitoring equipment, 'spot sampling', time-series data and confidence levels – Peter Morris**
- Includes types of currently available equipment, including the Gasclam, and their characteristics, how the equipment is used, the limitations of 'spot sampling data', benefits of high frequency sampling and the creation of time-series data, the relationship between quality, quantity and confidence in site information. Environmental correlations and more sophisticated interpretation techniques including, concentration duration curves, hysteresis and borehole recharge tests. Demonstration of the Gasclam
- 12:00 **Lunch**
- 12:45 **Exercise 1 - using time series data – Peter Morris**
- Includes the setting up of the aims and objectives of ground gas monitoring and interrogating data. The exercise will also include importing Gasclam data into Excel, the manipulation of large time-series data sets to produce graphs for interpretation.
- 13:45 **Risk prediction – generic and specific – John Naylor & Simon Talbot**
- Includes the importance of conceptual understanding, hazard assessment, Gas Screening Values, the 'worst credible approach', the 'worst possible approach', Fault and Event Tree analysis, acceptable levels of risk, basic diffusive and advective calculations and common sense 'risk estimation'.
- 14:30 **Tea & Coffee**
- 14:45 **Exercise 2 – Using time series data in risk prediction – John Naylor & Simon Talbot**
- Includes the use of actual time-series data and techniques used in risk assessment of high-frequency data and the choice of appropriate values to use in the risk assessment.
- 15:30 **Managing ground-gases – Simon Talbot**
- Includes breaking the pollutant linkage by; in-ground barriers, vents and protection measures to the building envelope and verification monitoring.
- 16:15 **Summary, Discussion and Final Questions - Panel**
- 16:45 Close

As the training includes 'hands on' computer work places are strictly limited to 28

Cost per delegate: £138.00 (excluding VAT) Included in this price is venue hire, computer hire, all catering and refreshments and delegate pack.

Reserve your place: Email: simon.talbot@ground-gassolutions.co.uk

For further information: Telephone: 0161 232 7465 or 0161 226 8357 or visit www.ground-gassolutions.co.uk

This event is an enhanced version of the recent CL:AIRE facilitated Gasclam Workshops presented by the above speakers. The following quotations were received:

- ***"Highly valuable module for all LA contaminated land officers" – Michael McNaughton – Clackmannshire Council***
- ***"Informative and Interesting" - Anthony Roberts – Environment Agency***
- ***"Interesting and helpful" - Gemma Pateman – Epsom and Ewell Borough Council***
- ***"I would recommend the course." – Heidi Hutchings, Consulting Group Manager, Enviros***