

BOOKING FORM

Risk Assessment of Contaminated Land and Groundwater at the University of Sheffield

12-14 February 2008 (plus optional Friday)

Return to Pat Rayner at the address overleaf

Name
Job title
Organisation
Address
Telephone
Fax
Email

I would like a place on this course **Full Price £695**

I intend to take part in the optional activities on Friday 15

I would like a list of b&b accommodation

I would like more information on the Masters programme

I enclose a cheque made payable to the University of Sheffield (*preferred option)

I would like to be invoiced at the above address

I would like to pay by credit card

Number
Expiry date on card
3 digit security code on card
Name on card
Signature on card
I have the following special requirements (eg vegetarian, mobility assistance)
Signed
Date

MSc TRAINING

This short course is also part of our MSc programme which includes *Contaminant Hydrogeology* and *Environmental Management of Urban Land and Water*. The courses have been approved by the Institution of Civil Engineers for accreditation leading to chartered engineer status.

Each module is taught in a three-week block, making intermittent study easy if you wish to take a degree part-time over several years. So, if you are thinking of doing more than one short course as Continuing Professional Development, consider signing up for an MSc (12 modules + project), Diploma (12 modules) or Certificate (6 modules)! More information is available at <http://www.shef.ac.uk/civil/pg/water.html> or we can send you further information if you tick the box on the booking form.

QUOTES FROM PREVIOUS DELEGATES

“The standard of all the presentations was excellent – very professional – very well informed” **“Really enjoyable and interesting throughout with a good atmosphere”** “Enjoyable and relevant”

FEEES AND BOOKING

The course fee is £695 for the three days inclusive of course notes, daytime meals and refreshments. Discounts are available for full time students and for multiple bookings from one organisation. A list of bed and breakfast accommodation can be provided if you wish to book accommodation at either hotels or guest houses, but we can't take responsibility for your choice.

Please complete booking form overleaf and send by fax or email to Pat Rayner:

Dept Civil & Structural Engineering
Mappin Street
University of Sheffield
Sheffield S1 3JD

Tel 0114 222 5758 Fax 0114 222 5793
e-mail p.rayner@shef.ac.uk

YOU MAY BE INTERESTED IN OUR OTHER COURSES

NAPLs 11-13 March 2008
In-Situ Groundwater Remediation 6-8 May 2008
Natural Attenuation 3-5 June 2008
Details from Pat Rayner as above



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RISK ASSESSMENT OF CONTAMINATED LAND AND GROUNDWATER

Presented by the Groundwater Protection and Restoration Group

12-14 February **2008**
at the University of Sheffield

WHAT IS RISK ASSESSMENT AND MANAGEMENT?

Risk assessment is now the cornerstone of contaminated land management. It underpins the approach of both the Government and the Environment Agency, and is the essential tool for implementing Part IIA of the Environment Act. Risk assessment is both a philosophy and a toolbox. It combines an understanding of the impact of pollutants on health and the environment together with knowledge of the behaviour of those pollutants along the pathway from their source to their target, and this course will give you an introduction to those fundamental ideas and processes which underlie risk assessment and management. It will also introduce you to the practical issues involved, and give you the tools to prioritise sites and select corrective actions if you work in consultancy. It will be invaluable for local authority technical officers, Environment Agency staff and site holders as well as consultants. Postgraduate students will also find the course useful for providing an overview of the topic in which to place their research and studies.

WHY YOU SHOULD DO THIS COURSE!

The course presents both the guiding philosophy and the fundamental principles for risk assessment of contaminated sites. These building blocks will assist you in the development of the all important conceptual model, and will put risk assessment in its context, including the underlying philosophy, toxicology and basic statistics. We will give you a brief overview of the fate and transport of contaminating substances and how these are included in models. We will discuss how risk assessments may be approached and give you the details of some specific procedures. The processes involved in carrying out risk assessment of contaminated sites can range from simple check boxes of site data against fixed standard values for a variety of pollutants to the more complex modelling of specific site characteristics. You will learn the basic principles for these processes by understanding the relationship between sources of pollutants, the pathways for their transport in environmental compartments and the exposure of environmental receptors.

We will support all discussions by studying case histories of site assessments, ranging from simple approaches for situations with low data availability to sophisticated stochastic modelling. Lecturers come from all sides of the business, from industry, regulators, consultancy and research, and the course is an excellent opportunity for you to meet leading figures in the field as well as fellow practitioners.

NEW TO THE COURSE THIS YEAR

The University of Sheffield short course on Risk Assessment has been running successfully since 1998, albeit with frequent updates. This year features include:

- Frances Pollitt of the Health Protection Agency to set the toxicological foundations
- Andy Singleton of ESI on human health risk assessment
- Mike Carey of ENTEC, the firm which is updating the water resources risk assessment
- David Brierley of Bridge Insurers to give the investors and insurers perspective

COURSE OUTLINE

- Why is risk assessment important and in widespread use?
- Human toxicology: what do the numbers mean?
- Fate and transport of pollutants and how to represent them in risk models
- Risks to environment and ecosystems
- Probability and uncertainty concepts underlying risk analysis
- Setting remedial targets for soil and groundwater (P20)
- Human health risk assessment, soil guideline values and the CLEA model.
- Use of GIS and ranking tools for prioritisation
- Applications: perspectives of owners, insurers and consultants

There is an optional extra day available on Friday 15 February at not charge. Delegates can attend a meeting of the Yorkshire Contaminated Land Forum (same location), and join the MSc students in a case study-based exercise.

ABOUT THE LECTURERS

David Lerner is Professor of Environmental Engineering at the University of Sheffield, leader of the Groundwater Protection and Restoration Group (GPRG), and Director of the SUBR:IM (brownfields) and URSULA (river corridors) research consortia. His research concerns the nature and fate of organic contaminants in the subsurface, and includes projects on the risks from chlorinated solvent DNAPLs, risk assessment for urban groundwater, and natural attenuation as a risk reduction mechanism.

Frances Pollitt is a Principal Toxicologist in the Chemical Hazards and Poisons Division of the Health Protection Agency. She worked in the pharmaceutical industry and in the Department of Health before joining the HPA. She leads a team which advises Government Departments and Agencies on human health effects of chemicals in water, soil and waste, to ensure that the development of Government policy takes due account of the protection and promotion of public health.

Dr Mike Carey is an Associate Director with Entec UK. Mike has been involved in a range of groundwater projects including delineation of groundwater protection zones, risk assessments for contaminated land sites, monitored natural attenuation and groundwater resource modelling. He has co-authored a number of guidance documents on risk assessment and natural attenuation for the Environment Agency, including the P20 methodology for derivation of remedial targets for soil and groundwater. More recently Mike has been involved in the assessment of groundwater monitoring data for the Water Framework Directive.

Andy Singleton is a senior consultant at ESI Ltd with over 10 years experience in applied hydrogeology and contaminated land risk assessment. Andy has a strong track record in all aspects of planning and implementation of contaminated land site investigation, data management and risk assessment. He has particular expertise in the modelling and interpretation of risks to human health. Andy is a regular presenter on a number of other contaminated land training courses.

Linda Isted joined Staniforth in 1995 from the BBC, where she was responsible for the introduction of bi-media (radio and TV) news coverage by reporters. She was also a producer for Radio 4 and a BBC TV presenter. Linda has a wide range of PR experience and is in charge of the consultancy's Media Training division. She has worked on risk communication with English Partnerships and many other clients in the contaminated land sector, as well as providing briefings and lectures through CL:AIRE.

David Brierley has headed the Environmental Risks Unit at Bridge Insurance Brokers Ltd since 2001. He is widely acknowledged to offer the UK's only specialist environmental insurance expertise outside London and the South East. Bridge has provided specialist insurance solutions for single sites, major PFIs and international portfolios. These have often supplied the essential key to unlocking transactions where pollution issues had proved to be a serious obstacle to completion. David regularly speaks at seminars and conferences on the financial management of pollution risks, contributes frequently to the press and is a trusted advisor to the legal community, the environmental industry and Academia.