



Land Contamination Risk Assessment

International training course

October 27th – 28th | Berlin, Germany

Implementing the overarching principles of contaminated land risk assessment within an international context.

ABOUT YOUR PROMINENT TRAINERS



Simon Firth
Director
Firth Consultants Ltd

Simon is an independent environmental consultant with 20 years experience in land contamination. Starting out as a hydrogeologist Simon has since developed significant expertise in human health

and environmental risk assessment both in the UK and internationally. Simon routinely conducts and peer reviews land contamination risk assessments and is an experienced trainer on this subject. Simon was one of the founder's of the UK's Society of Brownfield Risk Assessment and has been an Executive Committee member of the society since its inception in 2009.



Dr Naomi Earl MCIWEM, C.WEM, CEnv

Exposure and Risk Assessment and Land Contamination Consultant

Dr Naomi Earl is a Chartered Environmentalist with over 16 years consultancy experience in exposure and risk assessment, fate and transport processes

and land contamination. She started her career at LQM, where she was involved in the development of the CLEA and GasSim models. She joined Atkins in 2002, where she built and trained a team to deliver detailed quantitative risk assessments for human health in a variety of contexts, assessment of statutory liabilities for landholders, developing remediation criteria for large and complex regeneration projects.

KEY TAKEAWAYS

- Learn from experts with 30+ years of combined experience
- Two full days of consulting opportunities with your trainers
- Learn how to surpass today's challenges of contamination risk assessment
- 5H+ of networking with industry peers
- Explore the possibilities of your professional development
- Hands-On Case Studies from the trainers' and your experience
- Certification issued by the trainers
- Interactive environment and in-depth learning approach

WORKSHOP STYLE & OBJECTIVES

The main purpose of our training course is to create a highly interactive environment and bring together scientists, engineers, consultants and regulators who are working in the environmental sector and want to gain an understanding of how to implement the overarching principles of contaminated land risk assessment within an international context. Workshops are integrated throughout the two day course so that delegates get an immediate opportunity to implement these principles.

KEY TOPICS:

- The Risk Assessment Framework
- Risk screening
- Risk quantification estimating exposure
- Toxicology
- Risk models
- Risk evaluation and risk mitigation

WHO SHOULD ATTEND:

- Professionals conducting land contamination risk assessments or reviewing them
- Environmental consultants and consulting engineers
- Personnel involved in the management of a large portfolio of potentially contaminated sites (petrochemical, pharmaceutical, energy, mining and steel industry sectors)
- Regulators

IN-HOUSE TRAINING:

 Cost - effective in-house courses tailored specifically for and customised to your organisation's needs, can be arranged at your preferred location and time. If you would like to discuss this opportunity further, please contact our in-house training division at

igor.kottman@flemingeurope.com

BECOME IMMERSED IN BERLIN

This international training course will take place in the historical centre of Berlin. As a city with a strategic location, it is also one of the most important international relations, business and cultural centres of Europe. The training will hence offer a great and relevant place to meet and a compelling location to discover the historical heritage.

MASTERCLASS PROGRAMME

DAY 1

8:30 REGISTRATION

9:00 THE RISK ASSESSMENT FRAMEWORK

- What is the context for doing an assessment of risks from land contamination?
- Overview of relevant European legislation:
 - Environmental Damage Regulations;
 - Groundwater Daughter Directive;
 - Water Framework Directive.
- What are the fundamental principles of risk assessment?
 We will discuss:
 - Why a phased approach is better
 - Source-pathway-receptor linkages
 - Risk screening
 - Site-specific risk assessment
- Getting the building blocks right
 The importance of a good desk top study and site investigation

10:30 COFFEE BREAK

10:45 PROBLEM FORMULATION AND THE CONCEPTUAL SITE MODEL

- What receptors should a risk assessment consider?
 - Human health, surface water, groundwater, ecotoxicological receptors
- Pathways: How does contamination reach the receptors?
 - We will discuss different pathways to different receptors
- · Workshop Exercise: Building the conceptual model

12:30 LUNCH

13:30 RISK SCREENING

- The risk screening process
- How to simplify the risk assessment selecting constituents of potential concern
- What risk screening criteria should we use?
 - Human Health
 - Water
 - Terrestrial Ecology
- Workshop Exercise: Risk screening

15:15 COFFEE BREAK

15:45 RISK QUANTIFICATION-ESTIMATING EXPOSURE

- Exposure pathways and parameters for human health
- Exposure to flora/fauna
- Point of exposure concentrations
- Workshop exercise calculating exposure

DAY 2

9:00 TOXICOLOGY

- Principles behind toxicological assessment
- · Health effects
- Types of toxicological data human epidemiological data vs animal studies
- Deriving toxicity values for comparison with estimates of exposure
- · Bioavailability/bioaccessibility
- Workshop exercise selecting a suitable health based guidance value

10:30 COFFEE BREAK

10:45 FATE & TRANSPORT MODELLING

- Introduction to fate and transport modelling concepts
- Role of soil parameters in fate and transport modelling
- Role of physico-chemical parameters in fate and transport modelling
- Modelling fate & transport:
 - Plant uptake
 - Vapour intrusion
 - Groundwater modelling

12:30 LUNCH

13:15 RISK MODELS

- Common risk models
- Differences between them
- Understanding outputs
- Workshop exercise assessing vapour risk from a volatile contaminant in soil

14:45 COFFEE BREAK

15:00 RISK EVALUATION AND RISK MITIGATION

- Risk evaluation
 - Assessing uncertainty
 - Weighing up lines of evidence
 - Addressing data gaps
- Risk management strategies
 - Breaking the S-P-R linkage
 - Costs/benefits of risk mitigation strategies
 - Remediation validation
- Wrap-up discussion

I would like to thank everyone, who has helped with the research and organisation of this event. Special thanks goes to our trainer for his commitment and for his generous and invaluable support.

Igor Kottman, Training Producer - Energy

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SALES CONTRACT Conference Code: BATD137

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