

12th SRA Europe Annual Meeting, Berlin

Training Workshop: “*Online Tools for Risk-based Decision making*”

Sunday, July 21st, 2002 9:00 to 13:00
Humboldt University Berlin

Presenter: Fred Dolislager. Research Associate. The University of Tennessee, Knoxville. Technical Contact and Project Coordinator of the online "Risk Assessment Information System"
http://risk.lsd.ornl.gov/rap_hp.shtml

Course Description: This training course will provide an introduction to the use and contents of the “Top 10+1” online environmental risk assessment tools. The course will be in lecture format. In addition to the lecture, each recipient will receive a CD-ROM containing the user guide files, the software (if downloadable), and links to the websites. All the online tools being discussed are free to the general public. This course will explain the intended uses of these sites as well as the assumptions in the programming not readily apparent. The topics covered will be everything from GIS data assessment to risk characterization. This course will be excellent for environmental risk assessors, risk managers, project managers, toxicologists, environmental engineers, and regulators.

Workshop Fees: The fee for the workshop is a mere **75 €**. This reduced price will only cover the materials costs and room rental charges. Similar courses typically charge much greater fees.

Registration: Please contact Martin Clauberg at m.clauberg@fz-juelich.de or fax [+49 / (0)2461 61 2950]. Payment is to be made at the training via cheque drafts or cash. You will receive a receipt for travel reimbursement purposes.

Participation will be limited and will be assigned on a first-come, first-served basis.

Timetable of Events

8:30 to 9:00	Check-in and registration
9:00 to 9:05	Introduction
9:05 to 9:30	ATSDR ToxFAQs™, Profiles and MRLs http://www.atsdr.cdc.gov/toxfaq.html http://www.atsdr.cdc.gov/toxpro2.html http://www.atsdr.cdc.gov/mrls.html
9:30 to 9:45	Breakfast break (provided as part of registration fee)
9:45 to 10:15	IRIS and ITER http://www.epa.gov/IRIS/subst/index.html http://iter.ctcnet.net/publicurl/pub_search1.cfm?
10:15 to 10:40	EPA PRG (rad) (nonrad not released) http://epa-prgs.ornl.gov/radionuclides/
10:40 to 11:00	SSL(nonrad and rad) and SCEM http://risk.lsd.ornl.gov/calc_start.htm http://risk.lsd.ornl.gov/rad_start.shtml http://tis-nt.eh.doe.gov/oepa/programs/scem.cfm
11:00 to 11:05	break
11:05 to 12:00	RAIS http://risk.lsd.ornl.gov/rap_hp.shtml
12:00 to 1:00	SADA and FIELDS http://www.tiem.utk.edu/~sada/ http://www.epa.gov/region5fields/static/pages/index.html

Abstracts of online resources being taught.

ATSDR ToxFAQs™, Profiles and MRLs

The Agency for Toxic Substances and Disease Registry (ATSDR) ToxFAQs™ is a series of summaries about hazardous substances developed by the ATSDR Division of Toxicology. Information for this series is excerpted from the ATSDR Toxicological Profiles and Public Health Statements. Each fact sheet serves as a quick and easy to understand guide. Answers are provided to the most frequently asked questions (FAQs) about exposure to hazardous substances found around hazardous waste sites and the effects of exposure on human health.

ATSDR produces "toxicological profiles" for hazardous substances found at National Priorities List (NPL) sites. These hazardous substances are ranked based on frequency of occurrence at NPL sites, toxicity, and potential for human exposure. Toxicological profiles are developed from a priority list of 275 substances. ATSDR also prepares toxicological profiles for the Department of Defense (DOD) and the Department of Energy (DOE) on substances related to federal sites. So far, 261 toxicological profiles have been published or are under development as "finals" or "drafts for public comment".

The ATSDR Minimal Risk Levels (MRLs) were developed as an initial response to Federal mandate. An MRL is an estimate of the daily human exposure to a hazardous substance that is likely to be without appreciable risk of adverse noncancer health effects over a specified duration of exposure. These substance-specific estimates, which are intended to serve as screening levels, are used by ATSDR health assessors and other responders to identify contaminants and potential health effects that may be of concern at hazardous waste sites.

IRIS and ITER

IRIS is a database of human health effects that may result from exposure to various substances found in the environment. IRIS was initially developed for EPA staff in response to a growing demand for consistent information on chemical substances for use in risk assessments, decision-making and regulatory activities. The information in IRIS is intended for those without extensive training in toxicology, but with some knowledge of health sciences.

ITER is a free Internet database of human health risk values for over 500 chemicals of environmental concern from several organizations worldwide. ITER is the only database that provides this data in a table format that allows side-by-side comparisons of risk values from different organizations. Below the table is a synopsis that includes an explanation for any differences among the organizations' values. ITER provides links to these organizations for more detailed information. ITER currently contains data from: ATSDR, Health Canada, RIVM, The Netherlands, EPA, and independent parties whose risk values have undergone peer review.

EPA PRG

Here you will find risk-based PRGs calculated for rads (nonrads not released yet) using the latest toxicity values. The input parameters may be modified to create site-specific PRGs that meet the needs of your site. The rad tool is EPA's Superfund radioactive dose cleanup concentrations (DCC) download and calculation website for demonstrating compliance with dose-based Applicable or Relevant and Appropriate Requirements (ARARs). Here you will find DCCs calculated using the dose conversion factors from both International Commission on Radiological Protection (ICRP) 30 and ICRP 60.

SSL and SCEM

The Soil Screening Guidance is a tool that the EPA developed to help standardize and accelerate the evaluation and cleanup of contaminated soils at sites on the NPL with future residential land use. This guidance provides a methodology for environmental science/engineering professionals to calculate risk-based, site-specific, soil screening levels (SSLs) for contaminants in soil that may be used to identify areas needing further investigation at NPL sites. The EPA has developed this SSL for Radionuclides as a tool for screening at radioactively contaminated NPL sites.

EPA guidance on the preparation of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) scoping documents requires the development of a Site Conceptual Exposure Model (SCEM) as a planning tool for public health and ecological risk assessments. RCRA corrective actions also require risk assessments to be conducted to determine the potential impacts to public health and the environment. To

streamline this process, the Office of Environmental Policy and Guidance, RCRA/CERCLA Division (EH-413), created the SCEM Builder, a user-friendly computer application, to assist environmental restoration program managers (ERPMS) in preparing SCEMs.

RAIS

The RAIS contains Risk Assessment Tools and Information. The Risk Assessment Tools include: Risk-Based Preliminary Remediation Goal (PRG) calculations, a Toxicity data base, Risk Calculations, and Ecological Benchmarks. The Tools are designed for easy use and can be customized for site-specific conditions. The RAIS also includes information, guidance, and risk results applicable to the risk community.

SADA and FIELDS

Spatial Analysis and Decision Assistance (SADA) is free software that incorporates tools from environmental assessment fields into an effective problem solving environment. These tools include integrated modules for visualization, geospatial analysis, statistical analysis, human health risk assessment, ecological risk assessment, cost/benefit analysis, sampling design, and decision analysis. The capabilities of SADA can be used independently or collectively to address site specific concerns when characterizing a contaminated site, assessing risk, determining the location of future samples, and when designing remedial action.

The Fully Integrated Environmental Location Decision Support (FIELDS) Team's mission is to identify, assess, communicate and help solve priority environmental problems in specific geographic areas. To achieve our mission, we have developed and applied innovative and effective technology tools (the FIELDS System) guided by sound environmental principles and programs.