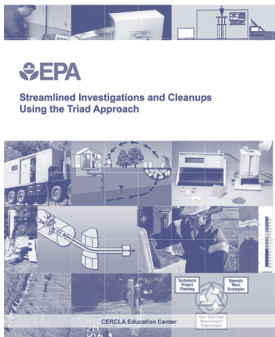


Course Description and Objectives

The *Streamlined Investigations and Cleanups Using the Triad Approach* course provides participants an introduction to a wide array of innovative technologies and approaches that can be used to characterize hazardous waste sites. The course stresses the importance of the planning process and the use of field-based measurement technologies and on-site data assessment techniques. The course, developed jointly by the U.S. Environmental Protection Agency (EPA) and representatives of the interagency site characterization subgroup of the Federal Remediation Technologies Roundtable (FRTR), provides participants a comprehensive summary of the various types of field-based technologies and their uses. The training is offered in a variety of formats, from a 3-day course to a 2-hour internet-based seminar. Lectures are alternated by hands-on technology demonstrations and question-and-answer sessions with technology vendor representatives. The delivery format of the training is highly flexible and can be customized based on the needs and request of the particular audience. In some cases, one to two days of lecture may be followed later by a series of follow-up internet-based seminars.

The course focuses on the practical planning and data assessment aspects for projects employing the use of field-based measurement technologies and innovative uncertainty management technologies. By taking the course, participants will achieve the following objectives:

- **Understand the systematic planning process to facilitate the use of field-based technologies and innovative approaches for accelerated site characterization.** Participants will learn how the extra effort and resources that go into effective and careful planning will increase the likelihood of a project's successful completion and reduce costs and project lifetime.
- **Describe how data obtained by field-based technologies are integrated into a systematic plan.** The course explains how a conceptual site model (CSM) is developed and used to integrate field data into the site decision-making process so that the right amounts and kinds of data are collected.
- **Explain how to prepare and implement dynamic work strategies. Participants will learn how the systematic planning process is used to design a dynamic work strategy and procurement practices.** Participants will learn how to evaluate results as they are received and use this information to refocus field efforts on a real-time basis to minimize decisions related to uncertainties.



Please see the reverse side of this flier for a condensed outline of the course, as well as information about registering to attend the course.

About the CERCLA Education Center

The CERCLA Education Center (CEC) is a unique training forum implemented by EPA's Office of Solid Waste and Emergency Response. CEC courses have been developed cooperatively by the Office of Superfund Remediation and Technology Innovation; the Office of Emergency Management; the Office of Acquisition Management; the Office of Enforcement and Compliance Assurance; and the Office of Research and Development. Site managers from many EPA regions provide technical advice, comment, and support. The CEC's structured curriculum, designed primarily for EPA hazardous waste site managers, enables participants to attend training that is of particular interest to them and most appropriate to their projects and workloads.

- **Evaluate the use of field-based technologies for various sampling and analysis activities.** Participants will learn how to select and optimize the use of field-based measurement technologies, including how to apply the concepts of the performance-based measurement system (PBMS).
- **Learn concepts through the use of real-life examples.** Participants will be exposed to a variety of current project profiles on sites containing dense nonaqueous phased liquids (DNAPL), petroleum products, chlorinated solvents as well as landfills and small Brownfields sites.

Target Audience

There are no tuition costs for this course, which is open to all Federal, state, local, and corporate hazardous waste professionals. The course is designed for an audience of environmental professionals who are involved directly or indirectly in the planning and design of site evaluations. Individuals registering for the course should have a general science background and one to two years experience in the environmental field.

Condensed Course Outline

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| I. Overview of Triad | VI. X-Ray Fluorescence (XRF) and Other Inorganic Analysis Technologies |
| II. Systematic Planning | VII. Test Kit Methods |
| III. Direct Sampling Methods and Down-Hole Sensors | VIII. Dynamic Work Strategies |
| IV. Geophysical Methods | IX. Resources |
| V. Sampling Design and Decision Support Tools | X. Gas Chromatography (GC) |

How to Register

Be sure to register on-line for the *Streamlined Investigations and Cleanups Using the Triad Approach* course and view the most recent schedule of course offerings at www.trainex.org.

Related Courses

Additional training opportunities include:

- ***Field Analytical Technologies for Volatile Organic Compounds (VOC) in Groundwater*** is an internet-based seminar based upon an EPA Environmental Technology Verification (ETV) program evaluation of five different technologies for field analytical measurements of VOCs in groundwater.
- ***Field-Based Analytical Methods for Explosive Compounds*** is an internet-based seminar that discusses field-based analytical methods for explosive residues in soil and water matrices.
- ***Field-Based Geophysical Technologies Online Seminar*** is an internet-based seminar that discusses factors to be considered in scoping, executing, and reviewing projects that include geophysical instruments and techniques.

More Information

For more information about the CEC and the most recent schedule of course offerings, please call (703) 603-9910 or visit EPA's web site about training opportunities at www.trainex.org.