Advanced Triad Training for Practitioners

Course Description and Objectives

Advanced Triad Training for Practioners is based on best management practices (BMP) implemented by the U.S. Environmental Protection Agency (EPA), partnership organizations, federal and state partners, and consultants. Participants will learn how the Triad Approach can be used to streamline projects in a legal, technically sound, and cost-effective manner. By taking the course, participants achieve the following objectives:

✤ Integrate Triad BMPs into traditional project activities. This course illustrates how to use Triad sampling plan design, data collection, analysis, and management strategies at various entry points in a typical project timeline. The course highlights emerging quality assurance and quality control methods for evaluating data sufficiency and optimizing project sequencing. Case studies highlight benefits of using Triad concepts at hazardous waste sites within a variety of programmatic and regulatory frameworks.

✤ Effectively collect and communicate critical project information. The Triad Approach uses a systematic planning process to involve key stakeholders and develop the conceptual site model (CSM). The course provides examples of CSMs and describes how they are used as the basis for project and sampling plan design, and as a tool for maintaining stakeholder consensus throughout the project life cycle. The course stresses the importance of educating both technical and non-technical team members on the monetary and risk related benefits of using Triad to manage project-related uncertainties. Participants will be shown how comprehensive systematic planning in a Triad framework extends beyond normal data quality models. The course examines tools for managing the uncertainties associated with sampling, social, economic, and political factors that significantly impact hazardous waste cleanup and reuse projects.

✤ Design dynamic work strategies. Systematic planning provides the foundation for designing effective dynamic work strategies (DWS). The course describes the components of a DWS, including (1) methods for verifying performance, (2) using collaborative data sets, (3) methods for real-time decision making, (4) managing sample and small scale variability, (5) designing project and field decision logic, (6) implementing contingencies, and (7) creating streamlined work plans.

✤ Recognize and overcome the challenges presented while implementing a dynamic work strategy. Controlling a project during a DWS is challenging and involves communication and planning. Participants will learn how to manage and adjust programs in the field while maintaining the project's integrity. The course describes methods for controlling and directing work during dynamic work efforts, which include using unitized costing, setting project ceilings, and lowering project costs. Participants will examine how more focused characterization efforts can extend project funds and maximize the data collected.

✤ Use Triad BMPs to support all phases of the environmental cleanup life cycle. In addition to supporting site characterization, Triad BMPs can directly support risk assessment, technology selection, remedial design, remedy implementation, long-term operations, and optimization efforts. The course describes specific ways practitioners can apply the BMPs to support these major project phases.
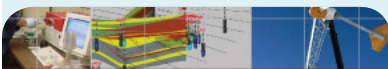
Target Audience and Registration Information

Advanced Triad Training for Practitioners is a 2-1/2-day course for those who would like more information on topics such as analytical technologies, in-depth sampling design, or system optimization and operation. EPA can work with training sponsors to customize this training to include facilitated panel discussions, site-specific case studies, technology demonstrations, or other material. Courses are provided at various locations in the continental United States. Visit www.trainex.org and select the CERCLA Education Center to view the current schedule of offerings and register to attend.

There are **no tuition costs** for this course. The target audience includes EPA, federal, state, tribal, and private industry technical project managers and stakeholders involved in the development and implementation of BMPs at hazardous waste sites. Attendees of this course should have some exposure to the Triad process and substantial experience in the areas of cleanup and reuse at hazardous waste sites.

Participants will receive reference material, including a detailed manual to continue their education after the course ends.

Other CERCLA Education Center Courses

✤ Triad Training for Managers, a 1-day course that introduces the Triad Approach and describes how it can be used to improve project efficiency during characterization, remedy design, remediation, and reuse. The course targets individuals who manage technical staff and project managers, and those technical staff with little to no experience with Triad. There are no prerequisites for this training course.

✤ Best Practices for Efficient Soil Sampling Designs, a 1-day course, discusses sampling designs for contaminated soils that go beyond simple random or "gridded" grab-sample formats. More advanced designs can reduce sampling and analytical costs while simultaneously improving data quality and usability. This course is presented using common sense concepts (not statistical equations!). Project managers who attend will find they are more confident providing critical reviews of proposed sampling designs and communicating their data needs to their contractors.

✤ Advanced Design Application and Data Analysis for FP-XRF in Soil Matrices, a 1-day course, covers material that generally is not presented in XRF presentations or training courses. This is an applications course on how FP-XRF can be used so that its data are highly dependable and defensible. Course content includes sampling design and sample handling options for FP-XRF, along with the benefits and limitations of each. This course will be of interest to staff developing XRF sampling and analysis plans, reviewing the plans for quality assurance, field operators, and those using XRF data to make project decisions.

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 EPA regions provide technical advice, comment, and support. The CEC's structured curriculum, designed primarily for EPA hazardous waste site managers and responders, enables participants to attend training that is of particular interest to them and most appropriate for their projects and workloads.

UP-TO-DATE COURSE INFORMATION
For information about course schedules, visit EPA's Training Exchange at www.trainex.org.