
Triad in the States

New Jersey DEP and ITRC

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Why Use Triad?

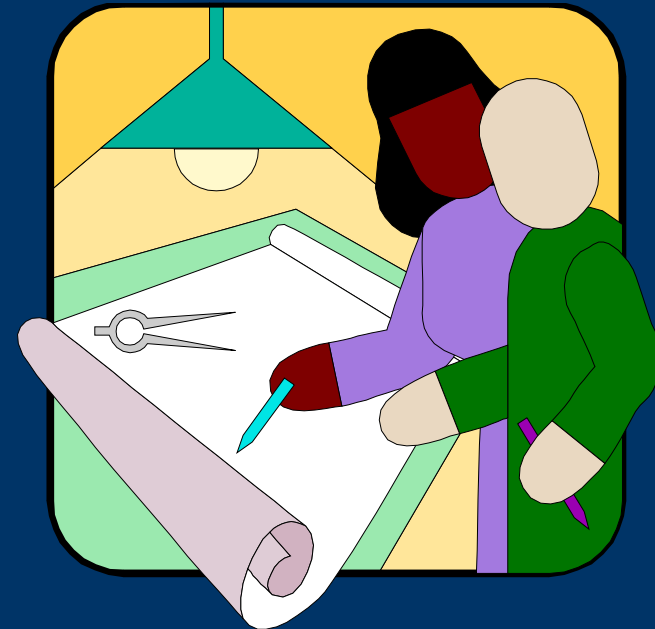
- ◆ War on caseload
- ◆ Supports Brownfields initiative
- ◆ Improve project focus & communications
- ◆ Eliminate excessive data needs
- ◆ Savings of \$4,430,000 for 11 projects

“Using The Triad Approach To Improve The Cost-Effectiveness Of Hazardous Waste Site Cleanups”, EPA 542-R-01-016, October 2001



Implementation Plan

- ◆ Supportive NJDEP Policy
- ◆ Training for staff & consultants
- ◆ Triad guidance document
- ◆ Pre-qualification of Triad practitioners



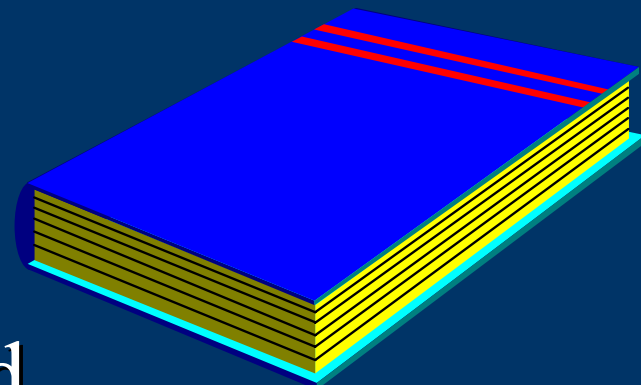
Policy Statement

- ◆ DEP supports and encourages Triad
- ◆ DEP evaluated the Technical Rules for compatibility with Triad
- ◆ Triad users are encouraged to use an MOA
- ◆ See www.nj.gov/dep/srp/triad/ for policy statement & guidance document



NJDEP Guidance Document

- ◆ Policy Statement
- ◆ Triad Overview
- ◆ Technical Rules
Compatibility with Triad
- ◆ Application of Field Analytical
Methods (When)
- ◆ Field Analytical Techniques (What)



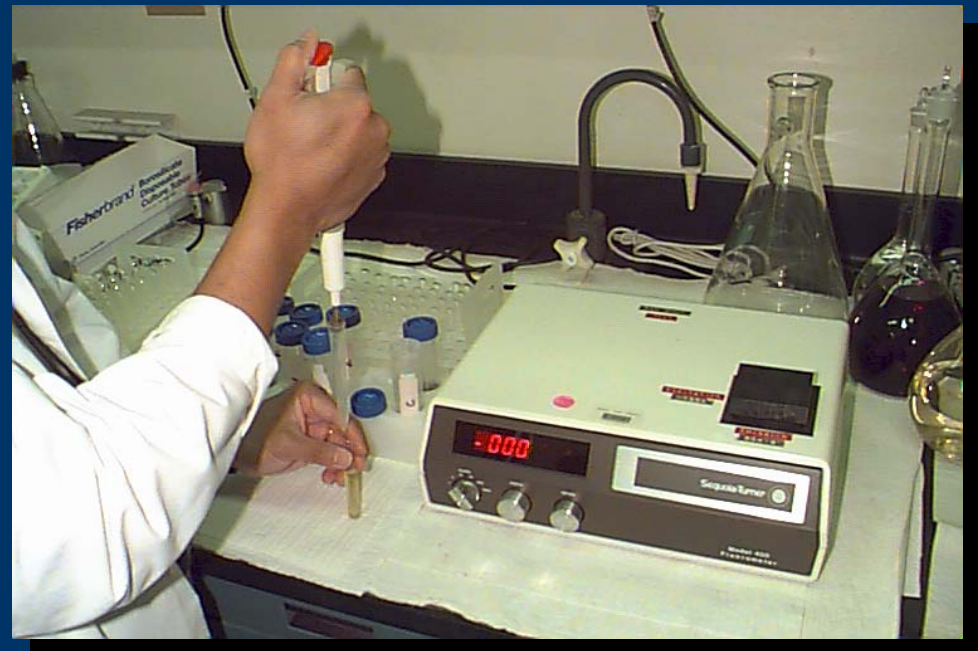
NJDEP Guidance Document

- ◆ Specific Advantages of Field Analysis
- ◆ Selection of a Field Analytical Method
- ◆ Quality Assurance Requirements
- ◆ References/Resources
- ◆ Glossary



Correlating Real-Time Data with Standard Methods

- ◆ Can document bias in the real-time method
- ◆ Can aid interpretation of data that are not analyte-specific
- ◆ Degree of correlation can be calculated



Open Issues & Future Orientation Sessions

- ◆ Certification for FAMs
- ◆ Electronic data
- ◆ Technical support on Websites
- ◆ Technical sessions/field days for real-time measurement technologies
- ◆ Annual Triad orientation sessions



Regulatory Acceptance For New Solutions



ITRC Mission

ITRC is a state-led, national coalition of regulators and others working to

- improve state permitting processes and
- speed implementation of new environmental technologies.



ACCEPTANCE

Participating Organizations

- Industry representatives
- Academia
- Public stakeholders
- Federal agencies



U.S. Department of Energy



U.S. Environmental Protection Agency



U.S. Department of Defense

- Host organization:



Environmental Council of the States

- State organizations:



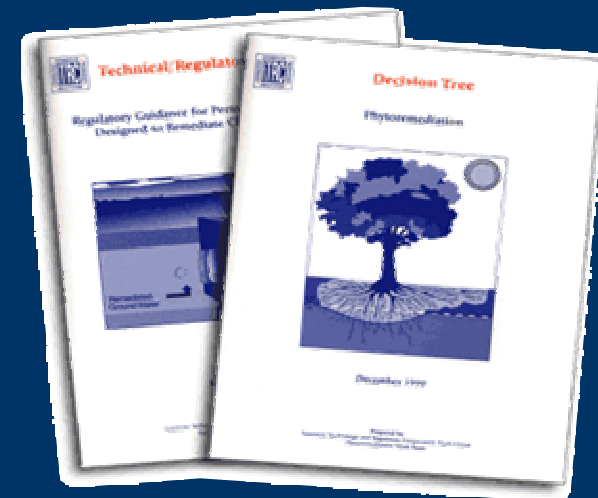
Western Governors' Association



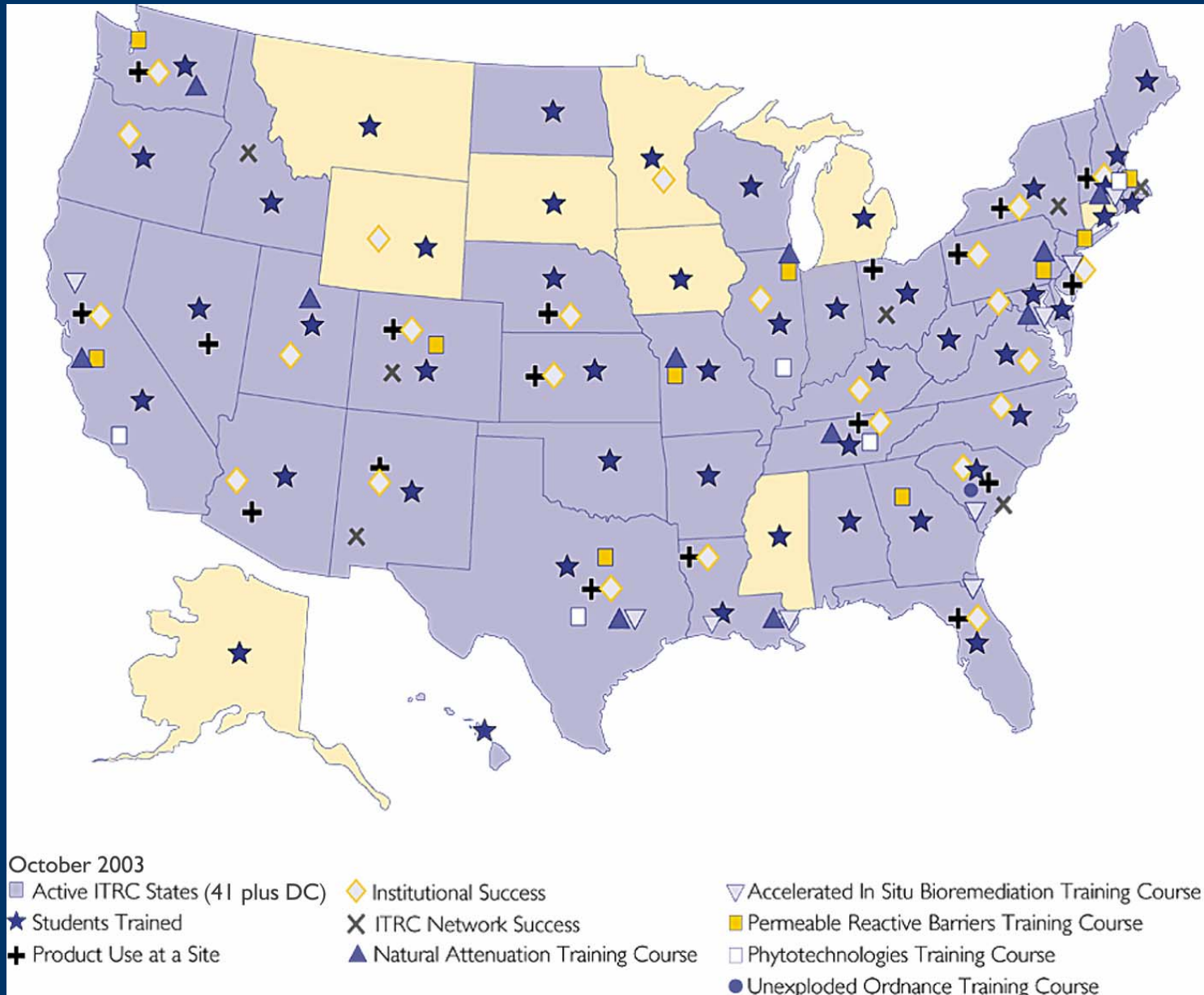
Southern States Energy Board

ITRC Products And Services

- Regulatory and Technical Guidelines
- Technology Overviews & Case Studies
- Peer Exchange
- Technology Advocates
- Classroom Training Courses
- Internet-Based Training Sessions



Nationwide Success



Active ITRC Technical Teams

- Alternative Landfill Technologies
- Brownfields
- Constructed Wetlands
- Contaminated Sediments
- Dense Nonaqueous Phase Liquids
- Diffusion Samplers
- DOE Gate 6 Technologies
- In Situ Bioremediation
- MTBE-Contaminated Groundwater
- Permeable Reactive Barriers
- Radionuclides
- Remedial Process Optimization
- **Sampling, Characterization, and Monitoring (SCM)**
- Small Arms Firing Range
- Unexploded Ordnance

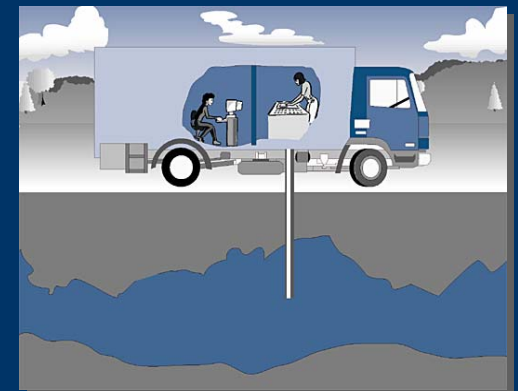
SCM Team

Value: Addresses innovations/paradigm shifts in sampling & monitoring related to real-time information, continuous monitoring, and monitoring for site closure and long-term stewardship

Lead: Stuart J. Nagourney, NJDEP

Members:

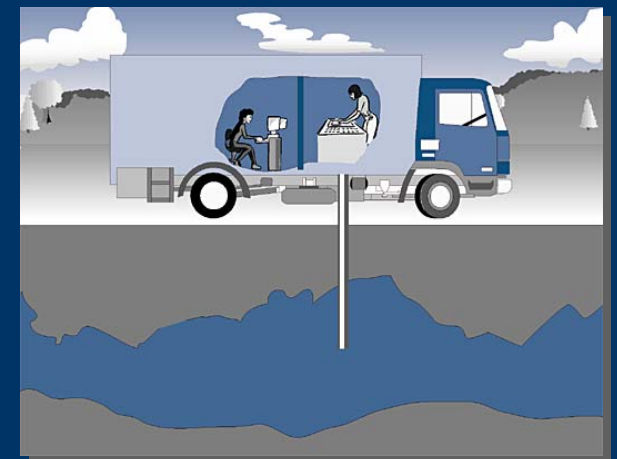
- 12 State Agencies
- EPA, DOD, DOE
- Academia
- Industry



SCM Team & Triad

How can the SCM Team promote Triad and change behavior?

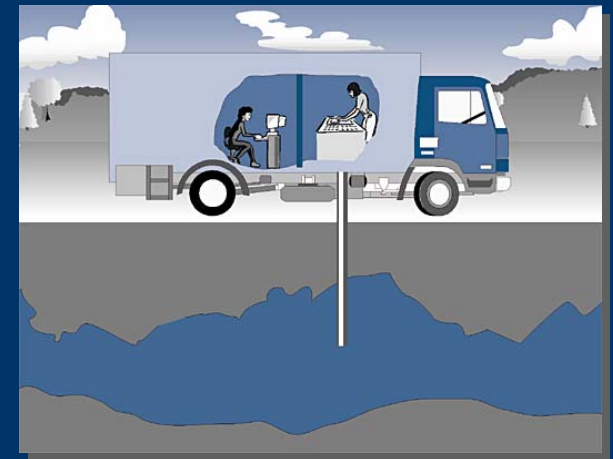
- Identify regulatory barriers & propose solutions
- Highlight TRIAD case studies
- Obtain multi-state acceptance for TRIAD
- Train/educate regulatory and technical communities



SCM Team

Deliverables

- FAM inventory & associated QA guidelines
- TRIAD technical regulatory document
- Case studies
- Technical regulatory document on direct push wells
- Survey state agency views on applying FAMs





SCM Team

Future Projects

- Develop guidance on Triad workplan development
- Examine sensor technology as applied to environmental remediation
- Research methods for real-time data presentation
- Work with European consortium on NORISC

ITRC Contacts

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