

UXO Basic Training



Austin, Texas, October 28 & 29, 2003

Co-sponsored by the U.S. EPA, the Texas Commission on Environmental Quality, and the Missouri Department of Natural Resources

UXO Basic Training

UXO Basic Training is a two-day, entry-level course designed to provide a solid overview of key environmental issues associated with ordnance and explosives cleanup.

Training is presented by the Interstate Technology & Regulatory Council (ITRC) and introduces participants to basic terminology, OE/UXO identification, safety concerns, regulatory requirements, conventional and innovative technologies, site investigation and site remediation.

UXO Basic Training addresses issues relevant to state regulators, federal environmental program managers, Department of Defense employees, industry consultants and community stakeholders.

Interstate Technology & Regulatory Council

ITRC is a state-led group of regulators, working with diverse members of the environmental community to reshape the future of regulatory acceptance of innovative environmental technologies. From all aspects of the environmental community, ITRC is a unique catalyst for dialogue between regulators and the regulated community.

UXO Work Team

UXO Basic Training was developed by the ITRC Unexploded Ordnance (UXO) Work Team. This team is comprised of individuals representing state and federal regulatory agencies, Department of Defense, industry, and community stakeholders interested in or affected by ordnance explosives, UXO issues, and contaminated sites.

For more information on ITRC, please visit the Web site at <http://www.itrcweb.org>.

Training Agenda



Registration 8:00 - 8:30

DAY 1: 8:30 - 4:00

Course Introduction

Module 1: What is a Bomb?

Module 2: Regulatory Framework

Module 3: Technology



DAY 2: 8:30 - 4:00

Day One Review

Module 4: Site Investigation

Module 5: Site Remediation

Course Wrap-Up

On-line registration is now available. To register on-line, visit <http://www.itrcweb.org> and navigate to classroom training.

Rave Reviews

"Great course - excellent overview of UXO from A to Z, start to finish with remediation."

-UXO Basic Training Attendee, U.S. Air Force

"The course presented a great overview of the types of ordnance that a project manager might encounter in the field."

-UXO Basic Training Attendee

"This course met, and exceeded, my need for a baseline understanding of UXO."

-UXO Basic Training Attendee,
State Regulator



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Day One Training Schedule



Registration 8:00-8:30

Course Introduction

Introduction to the key Ordnance Explosives/Unexploded Ordnance (OE/UXO) cleanup issues.

- Introduction to ITRC
- Scope of OE/UXO contamination
- Distribution and diversity of OE/UXO sites in the United States
- Course Overview

Module 1: What is a Bomb?

This module provides a detailed introduction to ordnance recognition, explosive hazards, safety considerations and safety resources.

- Overview of military munitions
- Types of military munitions
- Explosive and munitions hazards
- Safety considerations: Visiting a UXO site
- UXO safety resources

Module 2: Regulatory Framework

This module reviews the agencies and organizations involved in OE/UXO regulatory oversight, federal and state governing statutes, regulations and policies for OE/UXO cleanup.

- Federal and state agencies with regulatory oversight
- Community involvement
- Case studies
- Regulatory challenges

Module 3: Technology

This module covers conventional and innovative detection, removal and disposal technologies.

- Geophysics of OE/UXO detection
- Detection technology selection considerations
- Site-specific considerations
- Advanced detection technologies
- Removal technologies

Lunch on your own: 12:00 - 1:30

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Day Two Training Schedule



Day One Review

Module 4: Site Investigation

This module traces the steps involved in planning and performing an OE/UXO investigation.

- Initial data gathering
- Creating a conceptual site model (CSM)
- Devising a sampling plan
- Geophysical proveout
- Analyzing results
- Performing QA/QC

Module 5: Site Remediation

This module covers the remediation process and long-term site management considerations.

- Developing remediation alternatives
- Remedy selection and design
- Remedy implementation
- Post-remediation verification
- Long-term site management

Lunch on your own: 12:00 - 1:30

Course Wrap-Up

Training Location

Omni Austin Hotel - Downtown
700 San Jacinto at 8th Street
Austin, Texas
78701
512-476-3700

A room block has been set aside, at the a single rate of \$83 and a double rate of \$110. To make reservations, call 1-800-843-6664 and reference "UXO Basic Training." Please make your reservation by Monday, October 6th.

On-line Registration

On-line registration is now available. Please visit <http://www.itrcweb.org> and navigate to "Classroom Training."

Travel Scholarships

Travel scholarships are available for community stakeholders, tribal members, and out-of-state travel for state regulators. Please contact Stacey Kingsbury at stacey_kingsbury@wpi.org or 540-557-6065 if you are interested in applying for a travel scholarship.

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Instructors

Kevin Oates, U.S. Environmental Protection Agency

Mr. Oates is a RPM for the Superfund Program, EPA Region X in Anchorage, Alaska. He has 20 years of experience in the environmental field, with over 16 years of experience in federal civil service with EPA and U.S. Army Corps of Engineers in hazardous waste programs. He has spent five years working with the Department of Defense on ordnance issues at NPL sites. Mr. Oates has undergraduate and graduate degrees in Aquatic Chemistry and Water Resource Management from Rutgers University.

Jim Pastorick, Geophex UXO, Ltd.

Mr. Pastorick is President of Geophex UXO, Ltd., a company specializing in providing technical consulting in UXO project management and planning to state governments and foreign countries. He is a former Navy EOD officer and previously worked as Senior UXO Project Manager for UXB International, Inc. and the IT Group.

Jeff Swanson, Colorado Department of Public Health and Environment

Mr. Swanson has been with the Hazardous Materials Division of the Colorado Department of Public Health and Environment since 1993. He is the Department's staff authority on unexploded ordnance (UXO) site characterization and remediation, and he is the State Project Manager for the former Lowry Bombing and Gunnery Range and Camp Hale UXO projects. Mr. Swanson serves as an ITRC UXO Team Leader, overseeing the creation of the "UXO Basic Training" course and technical regulatory documents. He is a graduate of the Colorado School of Mines with a B.S. in Chemical and Petroleum Refining Engineering and a M.S. in Chemical Engineering.

Bill Veith, U.S. Army Corps of Engineers

Mr. Veith is with the Safety and Quality Team Command for the Ordnance and Explosives Center of Expertise, U.S. Army Engineering and Support Center, Huntsville, Alabama. Since 1995, he has advised senior Army Corps management at the division and district levels on ordnance explosives policy and procedure. Mr. Veith has a combined total of 35 years experience in the ordnance explosives/unexploded ordnance (OE/UXO) arena. He served 30 years in the military, including 25 years specifically in the EOD field where he held every active ordnance operational EOD position. He is a graduate of the Naval Explosive Ordnance Disposal School, Indian Head, Maryland.

Tracie White, Shaw Environmental & Infrastructure, Inc.

Ms. White is an engineer for Shaw Environmental & Infrastructure, Inc. (formerly Stone & Webster) and is currently working on UXO site characterization and remediation at the former Lowry Bombing and Gunnery Range in Colorado. She is a graduate of the Colorado School of Mines.

Laura Wrench, Versar, Inc.

Ms. Wrench is a Senior Environmental Engineer with Versar, Inc. and has over five years experience in the application of quality principles to the investigation and remediation of OE/UXO contaminated sites. She provides technical advice and support to the U.S. EPA for the remediation of OE/UXO sites, including assisting in developing sampling methodologies and in assuring the quality of investigation and remediation data. In addition, she has co-authored articles on various site investigation topics for the UXO/Countermine Forum, as well as serving as a trainer for the EPA's course on the Management of Ordnance and Explosives at Closed, Transferred, and Transferring Ranges and Other Sites.

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