

U. S. Environmental Protection Agency Region 4
RCRA Division

Training Criteria Recommendations

July 2007

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Regional Training Priority Recommendation Codes

C = Core training for the position required by EPA Order or other official Federal authority for identified position

R = Highly recommended training for the position identified by the Region

S = Special or supporting training recommended for the position by the Region

Underground Storage Tank (UST) Program

<i>Training Resources for UST Inspectors</i>	Recommendation Code
Mandatory Training	
<ul style="list-style-type: none"> • CST109: Basic Inspector Training Course • EPA or External Provider 40 hr Health and Safety Training Course and 8hr Refresher required by EPA Order 3500.1. • UST901: Introduction to the Underground Storage Tanks (UST) Program and Basic UST Inspector Training Courses 	<p>C</p> <p>C</p> <p>C</p>
Mandatory Self-Study/Review	
<p>Statutes/Regulations</p> <ul style="list-style-type: none"> • Relevant sections of the Solid Waste Disposal Act (SWDA), including Subpart I Sections 9001-9009 • 40 CFR Part 280, Technical Standards and Corrective Action Requirements for Owners and Operators of USTs <ul style="list-style-type: none"> Subpart A: Program Scope and Interim Prohibition Subpart B: UST Systems: Design, Construction, Installation and Notification Subpart C: General Operating Requirements Subpart D: Release Detection Subpart E: Release Reporting, Investigation, and Confirmation Subpart F: Release Response and Corrective Action for UST Systems Containing Petroleum or Hazardous Substances (only if applicable) Subpart G: Out of Service UST Systems and Closure Subpart H: Financial Responsibility Subpart I: Lender Liability 	<p>C</p> <p>C</p>

<ul style="list-style-type: none"> All applicable State UST/LUST regulations for each state in which the inspector will be conducting inspections. (Inspectors must know the applicable state regulations difference between federal and state regulations.) <p>Guidance/Reference Materials</p> <ul style="list-style-type: none"> Operating and Maintaining Underground Storage Tank Systems: Practical Help and Checklists (EPA 510-B-00-008), August 2000 UST/LUST Enforcement Procedures Guidance Manual (Directive 9610.11, May 1990) Financial Responsibility for Underground Storage Tanks: A Reference Manual (EPA 510-B-00-003), January 2000 Guidance for Federal Field Citation Enforcement (Directive 9610.16, Oct. 6, 1993) (only if the region authorizes inspectors to issue field citations) RCRA Confidential Business Information (CBI) Training (Contact: Regional RCRA CBI Officer for materials and information on regional process) Review of a minimum of two completed inspection reports 	<p>C</p> <p>C</p> <p>C</p> <p>C</p> <p>C</p> <p>C</p>
Mandatory On-the-Job Training (OJT)	
<p>Inspectors are required to conduct a minimum of five inspections or equivalent of 40 hours of inspections with a senior inspector before leading an inspection. Note: This includes inspection preparation procedures with a senior inspector. The actual number of inspections required could be more depending upon the experience level of the inspector, the regional need, and the evaluation of the individual inspector by the first-line supervisor.</p>	<p>C</p>
Mandatory Refresher Training	
<p>Program specific refresher training as identified by supervisor.</p>	<p>C</p>
Recommended Training	
<ul style="list-style-type: none"> UST Live Classroom Training Course offered by the regions or by states Live classroom tribal inspection training, for those regions with federally recognized tribes Modular Classroom UST Training (3-5 days) provided by various training centers including ANSI, University of Wisconsin, Colorado School of Mines, and NACE/ASTM Technical Institute 	<p>R</p> <p>R</p> <p>R</p>

Recommended Self-Study/ Review	
<p>UST Policy Compendium:</p>	
<ul style="list-style-type: none"> • U.S. EPA Penalty Guide for Violations of UST Regulations (Directive 9610.12, November 14, 1990) 	<i>R</i>
<p>Publications relating to UST Program:</p>	
<ul style="list-style-type: none"> • Musts for USTs: A Summary of the Federal Regulations for Underground Storage Tank Systems. (EPA 510-K-95-002). July 1995 	<i>R</i>
<ul style="list-style-type: none"> • Straight Talk on Tanks: Leak Detection Methods for Petroleum USTs and Piping (EPA 510-B-97-007), September 1997 	<i>R</i>
<ul style="list-style-type: none"> • USTs: Requirements and Options (EPA 510-F-97-005), June 1997 	<i>R</i>
<ul style="list-style-type: none"> • Automatic Tank Gauging Systems for Release Detection: Reference Manual for UST Inspectors (EPA 510-B-00-009), August 2000 	<i>R</i>
<ul style="list-style-type: none"> • Doing Inventory Control Right for USTs (EPA 510-B-93-004), November 1993 	<i>R</i>
<ul style="list-style-type: none"> • Getting the Most out of your Automatic Tank Gauging System (EPA 510-F-98-011), March 1998 	<i>R</i>
<ul style="list-style-type: none"> • UST Technical Compendium 	<i>R</i>
<ul style="list-style-type: none"> • UST/LUST National Native American Lands Policy Statement (Directive 9610.15), July 7, 1993 (does not apply to Region III – only applicable to regions with tribal lands) 	<i>R</i>
<ul style="list-style-type: none"> • Catalog of EPA Materials on Underground Storage Tanks (EPA 510-B-00-001), January 2000 	<i>R</i>
<ul style="list-style-type: none"> • Closing Underground Storage Tanks: Brief Facts. (EPA 510-F-96-004). July 1996. 	<i>R</i>
<ul style="list-style-type: none"> • Dollars & Sense (EPA 510-K-95-004), July 1995 	<i>R</i>
<ul style="list-style-type: none"> • Expedited Site Assessment Tools For Underground Storage Tank Sites: A Guide for Regulators. (EPA 510-B-97-001), March 1997 	<i>R</i>
<ul style="list-style-type: none"> • How to Effectively Recover Free Product at Leaking Underground Storage Tank Sites: A Guide for State Regulators. (EPA 510-R-96-001), September 1996 	<i>R</i>
<ul style="list-style-type: none"> • Introduction to Statistical Inventory Reconciliation For Underground Storage Tanks (EPA 510-B-95-009), September 1995 	<i>R</i>
<ul style="list-style-type: none"> • Manual Tank Gauging for Small Underground Storage Tanks (EPA 510-B- 	<i>R</i>

93-005), November 1993	
<ul style="list-style-type: none"> State Program Approval regulations and documents 	R
UST Closure	
<ul style="list-style-type: none"> A Contractor's Guide to UST Closures - classroom training by Petcon, Inc. 	S
<ul style="list-style-type: none"> Tank Closure Without Tears: An Inspector's Guide to Safety - video available from NEIWPC 	S
<ul style="list-style-type: none"> What Do We Have Here? An Inspector's Guide to Site Assessment at Tank Closure - video available from NEIWPC 	S
UST Inspection	
<ul style="list-style-type: none"> UST Inspection Training - classroom training by the Northwest Environmental Training Center 	S
<ul style="list-style-type: none"> Classroom training by Louisiana Department of Environmental Quality's UST Enforcement Section 	S
<ul style="list-style-type: none"> Advanced Inspector Training got ATGs - classroom training available from Ben Thomas Assoc. 	R
<ul style="list-style-type: none"> Searching for the Honest Tank: A Guide to UST Compliance Facility Inspections - video available from NEIWPC 	S
<ul style="list-style-type: none"> UST Inspector Online Training by NEIWPC 	R
<ul style="list-style-type: none"> Interviewing for Inspectors – classroom training by EPA Region 4 and 9 	S
UST Installation	
<ul style="list-style-type: none"> How to Install USTs & Piping - classroom training by Petcon, Inc. 	S
<ul style="list-style-type: none"> Solutions to New UST Problems - classroom training by Petcon, Inc. 	S
UST Leak Detection	
<ul style="list-style-type: none"> How to Test Cathodic Protection on USTs - classroom training by Petcon, Inc. 	S
<ul style="list-style-type: none"> Automatic Tank Gauges: Tanks Only - online training by PEI 	S
<ul style="list-style-type: none"> Automatic Tank Gauges: Tanks & Piping - online training by PEI 	S
<ul style="list-style-type: none"> Understanding Single-Walled Piping - online training by PEI 	S
<ul style="list-style-type: none"> Secondary Containment for Piping - online training by PEI 	S
UST Spill Containment & Overfill Prevention	
<ul style="list-style-type: none"> Spill Containment & Overfill Prevention - online training by PEI 	S
Data Management	
<ul style="list-style-type: none"> Introduction to Managing Environmental Data with Microsoft Access - classroom training by NWETC 	S
<ul style="list-style-type: none"> Applied Environmental Database Design and Queries with Microsoft Access - classroom training by NWETC 	S

Fate and Transport	
<ul style="list-style-type: none"> Containment Forensics of Petroleum, Chlorinated Hydrocarbons, and Metals: Geochemical Applications for Assessing Containment Transport, Risk, and Apportioning Liability - classroom training by NWETC 	S

<i>Training Resources for UST Corrective Action Officers</i>	Recommendation Code
Mandatory Training	
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<p>Guidance/Reference Materials</p> <ul style="list-style-type: none"> • Operating and Maintaining Underground Storage Tank Systems: Practical Help and Checklists (EPA 510-B-00-008), August 2000 • UST/LUST Enforcement Procedures Guidance Manual (Directive 9610.11, May 1990) • Financial Responsibility for Underground Storage Tanks: A Reference Manual (EPA 510-B-00-003), January 2000 • RCRA Confidential Business Information (CBI) Training (Contact: Regional RCRA CBI Officer for materials and information on regional process) 	<p>C</p> <p>C</p> <p>C</p> <p>C</p>
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<p>Publications relating to UST Program:</p> <ul style="list-style-type: none"> • Musts for USTs: A Summary of the Federal Regulations for Underground Storage Tank Systems. (EPA 510-K-95-002). July 1995 • Straight Talk on Tanks: Leak Detection Methods for Petroleum USTs and Piping (EPA 510-B-97-007), September 1997 • USTs: Requirements and Options (EPA 510-F-97-005), June 1997 • UST/LUST National Native American Lands Policy Statement (Directive 9610.15), July 7, 1993 (does not apply to Region III – only applicable to regions with tribal lands) • Catalog of EPA Materials on Underground Storage Tanks (EPA 510-B-00-001), January 2000 • Closing Underground Storage Tanks: Brief Facts. (EPA 510-F-96-004). July 1996. • Dollars & Sense (EPA 510-K-95-004), July 1995 	<p>R</p> <p>R</p> <p>R</p> <p>R</p> <p>R</p> <p>R</p> <p>R</p>

<ul style="list-style-type: none"> • Expedited Site Assessment Tools For Underground Storage Tank Sites: A Guide for Regulators. (EPA 510-B-97-001), March 1997 • How to Effectively Recover Free Product At Leaking Underground Storage Tank Sites: A Guide for State Regulators. (EPA 510-R-96-001), September 1996 • State Program Approval regulations and documents 	<p>R</p> <p>R</p> <p>R</p>
Chemistry	
<ul style="list-style-type: none"> • Fundamental Containment Chemistry: A Review of Chemistry Principles Essential for Understanding Containment Behavior in the Environment (Course 1 of 2) - classroom training by the Northwest Environmental Training Center (NWETC) • Containment Chemistry and Transport in Soil and Groundwater: An Overview of Petroleum, Chlorinated Hydrocarbon, and Metal Behavior in the Environment (Course 2 of 2) - classroom training by NWETC • Chemistry for Environmental Professionals: Fundamentals - classroom training by E RTP • Chemistry for Environmental Professionals: Applied - classroom training by E RTP 	<p>S</p> <p>S</p> <p>S</p> <p>S</p>
Exposure Pathways	
<ul style="list-style-type: none"> • Identifying Exposure Pathways - online training course by CDC-ATSDR or Register through the Division of Health Assessment and Consultation 	<p>S</p>
Geophysical Techniques	
<ul style="list-style-type: none"> • Introduction to Environmental Geophysics - classroom & field training by E RTP • Field-Based Geophysical Technologies Online Seminar - Archived December 12, 2001 seminar 	<p>S</p> <p>S</p>
Groundwater Investigations	
<ul style="list-style-type: none"> • Introduction to Groundwater Investigations - classroom training by E RTP • The Groundwater Pollution and Hydrology Course - classroom training by Princeton Groundwater • Petroleum Hydrocarbons and Organic Chemicals in Ground Water: Prevention, Detection, and Remediation Conference • Annual Ground Water Summit (listed annually in left menu of National Ground Water Association Web Site of the Events Page) • Advanced Monitor Well Installation Course - classroom & field training by EPA Region 4 	<p>S</p> <p>S</p> <p>S</p> <p>S</p> <p>S</p>

<ul style="list-style-type: none"> • An Overview of Direct-Push Well Technology for Long-Term Groundwater Monitoring - archived April 18, 2006 seminar • The Basics: Understanding the Behavior of Light Non-Aqueous Phase Liquids (LNAPLs) in the Subsurface - archived December 12, 2005 seminar • Field Analytical Technologies for VOCs in Groundwater - archived February 27, 2001 seminar 	<p style="text-align: center;">S</p> <p style="text-align: center;">S</p> <p style="text-align: center;">S</p>
Quality Assurance	
<ul style="list-style-type: none"> • EPA's Annual Quality System Training Event - classroom training by EPA • Transforming Data Quality Objectives to Measurement Quality Objectives - classroom training during EPA's Annual Conference on Managing Environmental Quality Systems • Introduction to QA Project Plans - classroom training during EPA's Annual Conference on Managing Environmental Quality Systems • Annual DoD Environmental Monitoring and Data Quality Workshop • Data Quality Objective Process Workshop - classroom training by EPA Region 4 • Data Validation Workshop - classroom training by EPA Region 4 • Quality Assurance Project Plan Workshop - classroom training by EPA Region 4 • Quality Management Plan Workshop - classroom training by EPA Region 4 • Uniform Federal Policy for Quality Assurance Project Plans - classroom training by the US Navy • QA training materials compiled by EPA's Quality Staff (including facilitator guides, slides, and hand-outs) for a variety of courses 	<p style="text-align: center;">S</p> <p style="text-align: center;">S</p> <p style="text-align: center;">S</p> <p style="text-align: center;">S</p> <p style="text-align: center;">S</p> <p style="text-align: center;">S</p> <p style="text-align: center;">S</p> <p style="text-align: center;">S</p> <p style="text-align: center;">S</p> <p style="text-align: center;">S</p> <p style="text-align: center;">S</p>
Remediation	
<ul style="list-style-type: none"> • Environmental Remediation Technologies - classroom training by ERTTP • Improving Contracting, Design, and Evaluation of Groundwater Pump and Treat Systems - archived December 5, 2005 seminar • In Situ Treatment of Groundwater Contaminated with NAPLs - various archived December 2002 seminars • Monitored Natural Attenuation of Petroleum and Chlorinated Hydrocarbons in Soil and Groundwater - classroom training by NWETC • The Remediation Course - classroom training by Princeton Groundwater • Principles of Environmental Remediation: AN Overview of Technologies for Soil and Groundwater Remediation - classroom training by NWETC 	<p style="text-align: center;">S</p> <p style="text-align: center;">S</p> <p style="text-align: center;">S</p> <p style="text-align: center;">S</p> <p style="text-align: center;">S</p> <p style="text-align: center;">S</p>

Risk Assessment	
<ul style="list-style-type: none"> • Risk-Based Corrective Action (RBCA) Applied at Petroleum Release Sites - classroom training by ASTM • Containment Forensics of Petroleum, Chlorinated Hydrocarbons, and Metals: Geochemical Applications for Assessing Containment Transport, Risk, and Apportioning Liability - classroom training by NWETC 	S S
Sampling	
<ul style="list-style-type: none"> • Sampling for Hazardous Materials - classroom training by ERTTP • Protocol for Use of Five Passive Samplers- Internet Seminar • Planning for Sampling - classroom training during EPA's Annual Conference on Managing Environmental Quality Systems • Hazardous Waste Site Sampling Course - classroom & field training by EPA Region 4 • Field Analytical Technologies for VOCs in Groundwater - archived February 27,2001 seminar 	S S S S S
Vapor Intrusion	
<ul style="list-style-type: none"> • Vapor Intrusion Pathway: A Practical Guideline - Internet seminar by ITRC • Dr. Blayne Hartman's PowerPoint presentations • Vapor Intrusion Into Indoor Air: Introduction to OSWER Guidance - archived February 12, 2003 seminar 	S S S