

# Resource Training Institute, LLC

2024

## Course Catalog



*For additional information, please contact our Training and Registration Center at  
706-951-5685 or visit our [website www.rtii.org](http://www.rtii.org)*

In an effort to provide and make continuing environmental education and advanced environmental training more accessible to the environmental professional RTI offers a full curriculum of environmental management courses. Upon satisfactory completion of any of our courses within the curriculum, a certificate of completion will be issued by RTI and appropriate credit applied towards earning our certification or satisfying the continuing education requirement as specified as a condition of your current registration. Courses were developed with lessons learned of the US Department of Energy, the USEPA and USDOD and include specific examples and the latest best practices. All courses are taught by subject Matter Experts (SME) and have applicability to both Government and the Commercial Environmental Management industries. The RTI curriculum is broad with courses at both the introductory and advanced level.

Courses are offered throughout the United States and internationally via satellite broadcast, webcast and classroom lectures.

For more information, please contact RTI at:

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Decontamination & Decommissioning

**Decontamination and Decommissioning**

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## Decontamination and Decommissioning

### **RTII 121 Decontamination, Dismantlement, Deactivation and Decommissioning of Nuclear Facilities**

*Note: Course prices are current as of publication date, however they are subject to change without notice. Please contact RTI for current information.*

**Per Person Price:** \$19

95

**Firm Fixed Price:** Available Upon Request

**Max Class Size:** 40

**Training Hours:** 32

**Duration:** 4 Days

**Delivery Method:** Classroom Lecture & Exercises

**Intended Audience:**

This course is intended for individuals who need to have a clear understanding of the decontamination, dismantlement, deactivation and decommissioning process of DOE facilities.

**Course Description:**

The primary objective of this course is to provide the most relevant and up-to-date information concerning the decontamination, dismantlement, deactivation and decommissioning (D4) of DOE Facilities. The course evaluates these activities as a system in terms of impacts on the facility, protection of the workers and public, managing the resultant waste and applying the integrated safety management system into the process. The course also includes class exercises to enhance the students understanding of the subject.

Topics covered in the course include:

- Basic Data Requirements
- Worker Protection
- Cleanup Strategy
- Waste Handling and Transportation
- Dose Assessment
- Documenting Compliance
- Cleanup Regulations, Risk Management
- Technologies and Communicating with Regulatory Agencies and Stakeholders

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## Decontamination and Decommissioning

### **RTII 192 Facility Disposition: Principles of Integrated Safety and Project Management**

*Note: Course prices are current as of publication date, however they are subject to change without notice. Please contact RTI for current information.*

**Per Person Price:** \$850

**Firm Fixed Price:** Available Upon Request

**Class Size:** 30

**Training Hours:** 16

**Duration:** 2 Days

**CEUs:** 1.6

**Delivery Method:** Classroom Lecture & Exercises

**Intended Audience:**

DOE program and project managers, contractor personnel and commercial individuals who are involved in the management of execution of environmental restoration work governing the disposition of facilities at DOE installations in accordance with CERCLA and Integrated Safety Management.

**Course Description:**

This course presents an integrated framework of drivers, lessons learned and flexible tools that emphasize a focus on streamlining accomplishment of technical work and reaching desired end-states within the facility disposition framework. The course also describes how integrated safety management principles and functions are addressed during facility disposition phase. Participants apply lessons learned to facility disposition planning and implementing facility disposition plans. A series of case studies are used to illustrate course concepts for students. Participants will receive 1.6 Continuing Education Units (CEUs) for completion of this course. Participants will apply the streamlining principles and tools presented.

Topics covered include:

- Policy/regulatory requirements for deactivation and decommissioning under CERCLA;
- Application of principles of environmental restoration and other streamlining programs;
- Project management of D&D activities under CERCLA removal authority; and
- Methods to integrate Integrated Safety Management System strategies and concepts into tools that help streamline D&D projects.

**Comments:**

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Environmental Compliance

**Environmental Compliance**

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## Environmental Compliance

### **RTII 118 Applied Clean Air Act**

*Note: Course prices are current as of publication date, however they are subject to change without notice. Please contact RTII for current information.*

**Per Person Price:** \$1495

**Firm Fixed Price:** Available Upon Request

**Class Size:** 30

**Training Hours:** 24

**Duration:** 3 Days

**Delivery Method:** Classroom Lecture & Exercises

#### **Intended Audience:**

This course is intended for environmental professionals who are responsible for the proper implementation and monitoring of their facilities/site compliance with the requirements of the Clean Air Act.

#### **Course Description:**

This course provides the student with a complete understanding of all facets of the Clean Air Act and the 1990 Amendments. The course takes the students through the fundamentals of air pollution from the sources to abatement equipment to monitoring to air dispersion models. It provides the student with an opportunity to apply the new ANSI N13.1-1999 criteria. Some of the topics that will be covered by the course include:

- Description of air pollution sources, effects, and atmospheric models of air pollutants of most concern
  - Application of the 1990 Clean Air Act Amendments
  - Application of the CAA regulations on permitting, stationary and mobile sources, and ozone depleting substances
  - Compliance determination of Subpart H requirements through radionuclide monitoring
  - Determining sampling criteria required by ANSI N13.1-1999 for a compliant sampling system using PC based software (ASSET)
  - Identifying and describing the purpose of ventilation and air pollution control systems
  - Understanding what Periodic Monitoring is and the various monitoring approaches that can be applied to satisfy compliance
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## Environmental Compliance

### **RTI 122 NEPA for NEPA Compliance Officers Course**

*Note: Course prices are current as of publication date, however they are subject to change without notice. Please contact RTI for current information.*

**Per Person Price:** \$100

**Firm Fixed Price:** Available Upon Request

**Class Size:** Not Specified

**Training Hours:** 4

**Duration:** 30 Days

**Delivery Method:** Computer Based Training (CBT)

#### **Intended Audience:**

Although designed to provide Department of Energy NEPA Compliance Officers with an introduction to the National Environmental Policy Act (NEPA) and specific DOE NEPA roles and requirements, it also is useful to other individuals as an opportunity to review these requirements.

#### **Course Description:**

This computer based training course provides an overview of NEPA requirements within the Department of Energy (DOE) followed by a module on how to "get started" with implementation of the NEPA process. Includes occasional self-check quizzes but not final exam. Below is the course outline:

##### Understanding DOE NEPA

- DOE NEPA Regulations, Policy and Guidance
- Evolution of DOE NEPA from 1970's, 80's, 90's
- The main flow of the NEPA process within DOE
- Roles & Responsibilities
- Distinctive features of DOE NEPA (compared to other agencies)
- DOE's Pyramid of NEPA reviews (internal link to module on Programmatic, site-wide, project-specific)

##### Getting Started

- The path of three branches
- Roles and responsibilities-who does what, when
- Practical considerations in the gray areas:
- CX vs. EA
- EA vs. EIS
- Guidance (e.g. Green Book)
- Examples

#### **Comments:**

This is a computer-based, self-study course. Students must have access to a multi-media, Windows-based computer with the following minimum system requirements:

- 486 PC with 8MB RAM
  - 4X CD-ROM drive
  - 16 bit Sound Card w/ Speakers
  - Windows 98, 2002 or NT operating system
  - Approximately 5MB free disk space for Adobe Acrobat
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## Environmental Compliance

### **RTII 148 Release Reporting & Emergency Planning and Community Right-to-Know Act (EPCRA)**

*Note: Course prices are current as of publication date, however they are subject to change without notice. Please contact RTI for current information.*

**Per Person Price:** \$9 35

**Firm Fixed Price:** Available Upon Request

**Class Size:** 50

**Training Hours:** 16

**Duration:** 2 Days

**CEUs:** 1.6

**Delivery Method:** Classroom Lecture & Exercises

**Intended Audience:**

DOE, EPA, state and contractor emergency management staff, and environmental compliance and management staff responsible for Emergency Release Reporting and Community Right-to-Know coordination and commercial environmental managers.

**Course Description:**

This course focuses on the episodic release reporting requirements in Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 103 and the Emergency Planning and Community Right-To-Know Act of 1986 (EPCRA) Sections 302-312. Participants will receive 1.6 Continuing Education Units (CEUs) for completion of this course.

Day 1 of the workshop explains the notification requirements under CERCLA Section 103 and EPCRA Section 304, and Occurrence Reporting and Emergency Management under DOE Orders.

Topics covered include:

- The types of releases that must be reported, when, and by whom;
- Use of the "mixture rule" in reporting releases of hazardous wastes;
- Continuous release reporting; and
- DOE's interpretation of "Environment" and "Facility" definitions.

Day 2 of the course focuses on implementation of EPCRA Sections 302-312, and DOE site-specific applications.

Topics covered include:

- Emergency planning;
  - Hazardous chemical inventory reporting;
  - A case study of the tritium release at the SRS plant; and
  - Insight into state and local regulators' expectations.
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## Environmental Compliance

### **RTII 149 EPCRA Section 313, Toxic Release Reporting Requirements**

*Note: Course prices are current as of publication date, however they are subject to change without notice. Please contact RTI for current information.*

**Per Person Price:** \$ 1295

**Firm Fixed Price:** Available Upon Request

**Class Size:** 50

**Training Hours:** 24

**Duration:** 3 Days

**CEUs:** 2.0

**Delivery Method:** Classroom Lecture & Exercises

**Prerequisites:** Release Reporting and Emergency Planning and Community Right-to-know ACT (EPCRA) Requirements course (NETO148) or experience in EPCRA is recommended.

**Intended Audience:**

DOE, EPA, State, and contractor environmental compliance and commercial management staff responsible for preparing and submitting their facilities' Toxic Release Inventory (TRI) and Pollution Prevention report(s).

**Course Description:**

The training course consists of a series of presentations covering the requirements of EPCRA Section 313 and related sections of the Pollution Prevention Act of 1990 (PPA). The training course will also address the EPCRA Section 313 and PPA reporting requirements as they apply to Federal agencies as a result of Presidential Executive Order 12856, "Federal Compliance with Right-To-Know Laws and Pollution Prevention Requirements." A variety of hands-on exercises using the TRI reporting Form R and associated guidance materials are used to help participants understand the TRI reporting process. Participants will receive 2.0 Continuing Education Units (CEUs) for completion of this course.

Topics covered include:

- Executive Order 12856;
  - TRI reporting requirements and thresholds;
  - Information management;
  - Changes to TRI Form R; and
  - Reporting requirements under the PPA Act.
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## Environmental Compliance

### **RTII 256 Environmental Laws and Regulations Course**

*Note: Course prices are current as of publication date, however they are subject to change without notice. Please contact RTI for current information.*

**Per Person Price:** \$995 **Firm Fixed Price:** Available Upon Request

**Class Size:** 40 **Training Hours:** 24

**Duration:** 3 Days **CEUs:** 2.4

**Delivery Method:** Classroom Lecture & Exercises

#### **Intended Audience:**

DOE, contractors or commercial employees new to the field of waste management environmental compliance, or environmental restoration, employees who may need an update on recent changes in environmental laws or regulations, employees with detailed knowledge of some environmental laws and regulations who need an understanding of the full breadth of these laws and regulations, or any employee who needs an overall understanding of the environmental laws and regulations governing DOE activities.

#### **Course Description:**

This 3-day course focuses on the environmental laws and regulations as they apply to DOE environmental management programs. Using examples from the DOE sites, the course addresses challenges such as: high level waste storage in tanks and treatment for disposal; transuranic waste characterization and disposal; low level waste disposal; mixed low level waste treatment, storage, and disposal; environmental compliance associated with operational facilities or restart issues; the repository program; decommissioning activities; and materials transportation.

Through presentation of the historical aspects of DOE environmental management activities, students obtain a context for understanding how DOE's challenges (contaminated sites and facilities, stored waste inventories, etc.) evolved, and how they can be addressed. Information is provided through lecture, discussion, breakout groups, and videos. Students also receive a detailed manual suitable for future use as a handy reference.

Significant time is spent on the Atomic Energy Act, the National Environmental Policy Act (NEPA), the Resource Conservation and Recovery Act (RCRA), and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) including case studies and breakaway groups to enable students to explore these laws and their impact on the EM program in depth. The remainder of the class discusses a number of additional laws and regulations (such as the Clean Water Act, the Clean Air Act, the Occupational Safety and Health Act, the Toxic Substances Control Act, and many more) at a sufficient detail to enable students to become familiar with the requirements and recognize when they should seek additional expertise within their organization. Laws and regulations covered in this class are: AEA, NEPA, RCRA, FFCA, CERCLA, CWA, CAA, OSHA, SDWA, TSCA, HMTA, PAAA, EPCRA, NWPA. A comprehensive exam (open book) measures whether students learned the material presented in this class.

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## Environmental Compliance

### **RTII 353 Management of Polychlorinated Biphenyls**

*Note: Course prices are current as of publication date, however they are subject to change without notice. Please contact RTI for current information.*

**Per Person Price:** \$1295

**Firm Fixed Price:** Available Upon Request

**Max Class Size:** 60

**Training Hours:** 24

**Duration:** 3 Days

**CEUs:** 2.4

**Delivery Method:** Classroom Lecture & Exercises, Remote

#### **Intended Audience:**

Participants will learn shortcuts, such as Assumption Rules for PCB concentrations, as well as the requirements, as amended, for inspecting, marking, storing, and record keeping of PCBs and PCB Items. Participants will also learn about the new disposal provisions for PCB remediation waste, PCB bulk product waste, PCB/radioactive waste, and wastes from research and development activities.

#### **Course Description:**

This course is an update of the previous DOE course on the Management of Polychlorinated Biphenyls (PCBs). On June 29, 1998, EPA issued the 250-page PCB Disposal Amendments (63 FR 35384). The amendments include many significant changes that will ease the compliance burden on the regulated community in accordance with the initiative of Reinventing Environmental Regulations. The course provides an overview of the PCB regulations with an emphasis on PCB disposal. Participants will learn shortcuts, such as Assumption Rules for PCB concentrations, as well as the requirements, as amended, for inspecting, marking, storing, and recordkeeping of PCBs and PCB Items. Participants will also learn about the new disposal provisions for PCB remediation waste, PCB bulk product waste, PCB/radioactive waste, and wastes from research and development activities. A copy of a Guidance Booklet on the Storage and Disposal of PCB Waste will be provided. A quiz after each section offers in-class opportunities to apply the knowledge acquired and to evaluate student learning.

Learning modules include the following: Background PCB information (physical, chemical, and toxicological properties), 40 CFR 761 Subpart A - General (applicability, categorizing PCBs, establishing the PCB concentration, and determining whether material is a PCB waste), 40 CFR 761 Subpart B - Prohibitions and Authorizations (manufacture, processing, distribution in commerce, and use; servicing, reclassification, and inspection), 40 CFR 761 Subpart C - Marking, 40 CFR 761 Subparts B and D - Storage for Reuse and Storage for Disposal, 40 CFR 761 Subpart B - Burning Used Oil, 40 CFR 761 Subpart D - Disposal (general requirements, bulk PCB liquids, and PCB Items), 40 CFR 761.61 - PCB Remediation Waste, 40 CFR 761 Subpart D - PCB Bulk Product Waste and Other Wastes, 40 CFR 761.79 - Decontamination, TSCA PCB Coordinated Approvals, 40 CFR 761 Subparts J and K - Record keeping, Reporting, and Notification

#### **Comments:**

PCB was designated by the Department of Energy Environmental Training Partnership as the "best-in-class" course in the Advanced TSCA topical Area.

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## **RTII 355 Polychlorinated Biphenyls Comprehensive Training**

*Note: Course prices are current as of publication date, however they are subject to change without notice. Please contact RTII for current information.*

**Per Person Price:** \$1295

**Firm Fixed Price:** Available Upon Request

**Minimum Class Size:** 15

**Training Hours:** 24

**Duration:** 3 Days

**CEUs:** 2.4

**This course, as all others offered by RTI, can be delivered at your location with the purchase of 15 seats. Call (706) 951-5685**

### **Course Description:**

**Delivery Method:** Classroom Lecture & Exercises, Remote

**Intended Audience:** This course is intended for Regulators, Auditors or those in the field with a need for detailed knowledge of regulatory requirements and issues involving PCBs.

Course Description: This comprehensive course provides in-depth instruction on requirements of the TSCA PCB regulations. Special emphasis is placed on current and complex issues associated with PCBs. Regulatory issues associated with remediation of contaminated environmental media and structures, and the management of associated wastes, will be reviewed. Similarly, issues associated with deactivation and decommissioning of facilities and equipment will be examined, including those involving radioactive facilities. The course will address the effective use of risk-based approvals for management of PCB remediation wastes and PCB bulk product wastes. Special difficulties under the current regulation will be discussed, e.g., the unauthorized status of Non-Liquid PCBs such as PCB-containing caulking and paints, and the difficulties associated with their removal. Other topics to be addressed include issues associated with long-term storage and integrating TSCA/RCRA's requirements with those of other regulations. Recommendations and tips will be provided for use by representatives from regulatory agencies and from regulated facilities. Recent enforcement actions of note will also be discussed.

Learning modules include the following: Background PCB information (physical, chemical, and toxicological properties); 40 CFR 761 Subpart A - General (applicability, categorizing PCBs, establishing the PCB concentration, and determining whether material is a PCB waste); 40 CFR 761 Subparts B, E and F - Prohibitions and Authorizations (manufacture, processing, distribution in commerce, and use, exemptions, exemptions, trans-boundary shipments, and equipment servicing, reclassification, and inspection); 40 CFR 761 Subpart C – Marking; 40 CFR 761 Subparts B and D - Storage for Reuse and Storage for Disposal; Commercial Storage Approvals/Permits; 40 CFR 761 Subpart B - Burning Used Oil; 40 CFR 761 Subpart D - Disposal (general requirements, bulk PCB liquids, and PCB Items including gas pipeline

systems), 40 CFR 761.70-.75 Disposal Facility Approvals/Permits; 40 CFR 761.61 - PCB Remediation Waste, 40 CFR 761 Subpart D - PCB Bulk Product Waste and Other Wastes, 40 CFR 761.79 – Decontamination; 40 CFR 761.77, TSCA PCB Coordinated Approvals; Subpart G, PCB Spill Cleanup Policy; and 40 CFR 761 Subparts J and K – Record keeping, Reporting, and Notification

A quiz after each section offers in-class opportunities to apply the knowledge acquired and to evaluate student learning.

For additional information, please contact our Training and Registration Center at (706) 951-5685 or visit our website at [www.rti.org](http://www.rti.org)

## Environmental Compliance

### **RTII 420 An Overview of Environmental Laws and Regulations for Citizens**

*Note: Course prices are current as of publication date, however they are subject to change without notice. Please contact RTI for current information.*

**Per Person Price:** \$775

**Firm Fixed Price:** Available Upon Request

**Class Size:** 30

**Training Hours:** 8

**Duration:** 1 Days

**CEUs:** 0.8

**Delivery Method:** Classroom Lecture & Exercises

#### **Intended Audience:**

This course is designed for members of the Citizens Advisory Boards for DOE facilities who need a basic understanding or refresher on key laws and regulations governing environmental management activities.

#### **Course Description:**

This course is being offered exclusively for Citizens Advisory Board Members. RTI will provide a one-day course that addresses the requirements of the key environmental laws affecting the DOE, especially its waste management, environmental restoration, and environmental compliance programs. Participants learn about the basics of various laws and regulations and how the public can affect decision-making processes. The course is organized around actual DOE case studies that provide lessons learned and give the students the opportunity to study how environmental compliance issues have been resolved. The strength of the course is its focus on how public involvement is applicable to the various laws and regulations. The detailed course manual serves as a useful desk reference summarizing the requirements of each environmental law or regulation. Participants will receive .8 Continuing Education Units (CEUs) for completion of this course.

Laws and regulations summarized include:

- National Environmental Policy Act (NEPA)
- Comprehensive Environmental Response, Compensation, and

Liability Act (CERCLA)

- Resource Conservation and Recovery Act (RCRA)
  - Clean Air Act (CAA) and Amendments
  - Clean Water Act (CWA)
  - Occupational Health and Safety Act (OSHA)
  - Emergency Planning and Community Right-to-Know Act (EPCRA)
  - Atomic Energy Act (AEA)
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## Environmental Compliance

### **RTII 421 An Overview of Environmental Laws and Regulations for Managers**

*Note: Course prices are current as of publication date, however they are subject to change without notice. Please contact RTI for current information.*

**Per Person Price:** \$795

**Firm Fixed Price:** Available Upon Request

**Class Size:** 30

**Training Hours:** 8

**Duration:** 1 Days

**CEUs:** 0.8

**Delivery Method:** Classroom Lecture & Exercises

#### **Intended Audience:**

This course is designed for executives and managers at DOE facilities and commercial managers who need a brief general understanding or refresher on key laws and regulations governing environmental management activities.

#### **Course Description:**

RTI will provide a one-day course that addresses the requirements of the key environmental laws affecting the DOE, especially its waste management, environmental restoration, and environmental compliance programs. Participants learn about the basics of various laws and regulations and recent changes. The course is organized around actual DOE case studies that provide lessons learned and give the students the opportunity to study how environmental compliance issues have been resolved. The strength of the course is its specificity on how these laws apply to DOE operations. The detailed course manual serves as a useful desk reference summarizing the requirements of each environmental law or regulation. The course includes a final comprehensive exam. Participants will receive .8 Continuing Education Units (CEUs) for completion of this course.

Laws and regulations summarized include:

- National Environmental Policy Act (NEPA)
- Comprehensive Environmental Response, Compensation, and

Liability Act (CERCLA)

- Resource Conservation and Recovery Act (RCRA)
  - Clean Air Act (CAA) and Amendments
  - Clean Water Act (CWA)
  - Occupational Health and Safety Act (OSHA)
  - Emergency Planning and Community Right-to-Know Act (EPCRA)
  - Atomic Energy Act (AEA)
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Environmental Restoration

**Environmental Restoration**

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## Environmental Restoration

### **RTII 116 CERCLA Orientation and Remedial Investigation/Feasibility Study**

*Note: Course prices are current as of publication date, however they are subject to change without notice. Please contact RTI for current information.*

**Per Person Price:** \$1095

**Firm Fixed Price:** Available Upon Request

**Max Class Size** 60 **Training Hours:** 16

**Duration:** 2 Days

**CEUs:** 1.6

**Delivery Method:** Classroom Lecture & Exercises

**Intended Audience:**

DOE, contractor or commercial personnel that have little or no familiarity/experience in the basic background and implementation of CERCLA.

**Course Description:**

Participants are provided with a basic understanding of CERCLA, and an in-depth review of the Remedial Investigation/Feasibility Study (RI/FS) process as it applies to DOE's environmental restoration program. Day one consists of an overview of the CERCLA process. Days two focuses on the RI/FS process and address site characterization, risk assessment, and remedy selection issues confronting DOE CERCLA sites. Attention is given to public involvement in the cleanup process. The course includes a final comprehensive exam. Participants will receive 1.6 Continuing Education Units (CEUs) for completion of this course.

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## Environmental Restoration

### **RTII 183 Principles for Accelerating Environmental Restoration**

*Note: Course prices are current as of publication date, however they are subject to change without notice. Please contact RTI for current information.*

**Per Person Price:** \$1095      Firm Fixed Price Available Upon Request

**Class Size:** 50

**Training Hours:** 16

**Duration:** 3 Days

**CEUs:** 1.6

**Delivery Method:** Classroom Lecture & Exercises

**Intended Audience:**

DOE, EPA, state, and contractor personnel responsible for evaluating cleanup alternatives and formulating records of decision.

**Course Description:**

The overall objective of the two-day training course is to communicate how to identify and implement streamlining opportunities at a site, using four principles of environmental restoration that address:

1. Creating an interagency core team;
2. Concise problem definition and identification;
3. Early identification of likely response actions; and
4. Uncertainty management.

These principles, which have been successfully implemented at several sites throughout the DOE complex, will help accelerate schedules and reduce the cost of the environmental restoration programs. During the training, participants apply the principles by working in small, multi-organizational groups, or "core teams" to complete several exercises and participate in case studies based on actual site cleanups. The course includes a final comprehensive exam.

**Comments:**

**PREREQUISITIES:** Suggested preparation - Working knowledge of the Comprehensive Environmental Response and Compensation Liability Act and Resource Conservation Recovery Act.

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## Environmental Restoration

### **RTII 293 Managing Human Health and Ecological Risk Assessments Under RCRA and CERCLA**

*Note: Course prices are current as of publication date, however they are subject to change without notice. Please contact RTI for current information.*

**Per Person Price:** \$1,8

**25 Firm Fixed Price:** Available Upon Request

**Class size :** 30

**Hours: Training**

24

**Duration:** 3 Days

**CEUs:** 2.4

**Delivery Method:** Classroom Lecture & Exercises

**Intended Audience:**

Government and contractor personnel involved in site cleanup activities that include conducting radiation surveys and investigations to support demonstrating a successful cleanup. This course is oriented toward CERCLA, federal facility, and RCRA sites.

**Course Description:**

This course provides participants with a review of the risk assessment role in the RCRA Facility Investigation (RFI) and the CERCLA Remedial Investigation/Feasibility Study (RI/FS) processes. The emphasis is on the fundamentals of planning and conducting risk assessments from a DOE project management perspective. The course specifically aids the participants to define the DOE project manager's role in the risk assessment process and provides tools for making risk management decisions and communicating risks to stakeholders. Students are provided with a comprehensive course manual and numerous DOE and EPA risk assessment publications. The course includes a final comprehensive exam. Participants will receive 2.4 Continuing Education Units (CEUs) for completion of this course.

Topics covered include:

- Introduction to risk assessment and the risk assessment process;
- Overview of the CERCLA/RCRA regulatory framework;
- Project planning and site investigation: process planning;
- Project planning and site investigation: conceptual site model and data quality objectives;
- Human health risk assessment: chemical assessment;
- Human health assessment: radiological assessment;
- Risk communication and public involvement;
- Ecological risk assessment;
- Moving from risk assessment to risk management; and
- Computational approaches.

## Environmental Restoration

### **RTII 351 Multi-Agency Radiation Survey And Site Investigation Manual (MARSSIM) Training**

*Note: Course prices are current as of publication date, however they are subject to change without notice. Please contact RTI for current information.*

**Per Person Price:** \$1950

**Firm Fixed Price:** Available Upon Request

**Class Size:** 28

**Training Hours:** 24

**Duration:** 3 Days

**CEUs:** 2.4

**Delivery Method:** Classroom Lecture & Exercises

**Intended Audience:**

Federal and state agency personnel involved in site cleanup activities that include conducting radiation surveys and investigations to meet the requirements of the Final Status Survey.

**Course Description:**

The Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM) was recently produced jointly by DOD, DOE, EPA and the NRC. This course provides information essential to environmental personnel responsible for planning, conducting, evaluating and documenting building surface and surface soil final status radiological surveys for demonstrating compliance with dose or risk-based regulations or standards. The course supports the MARSSIM objective to bring about a nationally consistent approach for conducting radiation surveys and investigations at potentially contaminated sites nationwide. This course assists site and regulatory personnel in assessing Final Status Surveys. The course is highly interactive and features DOE and EPA guest speakers, problem-solving exercises, and case studies. Handouts, references, and a copy of the MARSSIM manual are provided. Participants will receive 2.4 Continuing Education Units (CEUs) for completion of this course. This course also qualifies for 32 Continuing Education Credits (CECs) for Certified Health Physicist under the American Academy of Health Physics (AAHP).

Topics covered include:

- Overview of the Radiation Survey and Site Investigation Process
- Survey Planning and Design
- Field Measurement Methods and Instrumentation
- Interpretation of Survey Results

**Comments:**

On April 16, 1999, the MARSSIM manual and this course were awarded a Hammer Award by Vice President Gore's National Partnership for Reinventing government.

**PREREQUISITES:** NONE. However, attendees should have a working level knowledge of basic radiological principles and familiarity with the following statistical concepts: measures of central tendency (mean and median), standard deviation, frequency distributions, standard errors, confidence intervals, and the testing of statistical hypotheses. Preparatory materials for these subjects are available to the students prior to the course.

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## Environmental Restoration

### **RTII 360 Principles for Accelerating Remedial Design and Implementation**

*Note: Course prices are current as of publication date, however they are subject to change without notice. Please contact RTI for current information.*

**Per Person Price:** \$1235

**Firm Fixed Price:** Available Upon Request

**Class Size:** 40

**Training Hours:** 16

**Duration:** 2 Days

**Delivery Method:** Classroom Lecture & Exercises

#### **Intended Audience:**

DOE and contractor personnel, as well as their state and Federal regulator colleagues who are responsible for environmental restoration project management, design, construction and implementation of cleanup or closure projects under RCRA and CERCLA.

#### **Course Description:**

This course presents proven methods to consistently integrate streamlining principles\* into the remedial design and implementation (RDI), and closeout phases of environmental restoration projects under both the Resource Conservation and Recovery Act (RCRA) and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The principles identify ways to streamline RDI processes by focusing on problem identification, clearly articulating the remedial objectives, the means for achieving those objectives, uncertainty management, and developing exit strategies for all phases of the RDI project. Students will be given the opportunity to review existing decision documents to identify both flexibilities and allowances that can provide opportunities to streamline the overall RDI process. Through real site examples, participants will apply the streamlining principles and tools presented.

Topics covered include:

- Overview/review of the four streamlining and their applicability to RDI;
- Developing an effective core team;
- Identifying potential problems during RDI;
- Managing uncertainty;
- Effective procurement strategies;
- Early action and phased response actions and integration with other programs (i.e.,

Decommissioning);

- Streamlining reporting requirements and documentation;
- Construction risk;
- Health and safety considerations;
- Contingency threshold monitoring;
- Post-closure monitoring;
- Close-out reports; and
- Site-specific issue resolution.

#### **Comments:**

Use of these streamlining "principles" in the decision-making processes are also taught in the NETO courses on Principles of Environmental Restoration, and Principles for Accelerating Facility Disposition.

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## Environmental Restoration

### **RTII 427 1-Day Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM) Training for Managers**

*Note: Course prices are current as of publication date, however they are subject to change without notice. Please contact RTI for current information.*

**Per Person Price:** \$1025

**Firm Fixed Price:** Available Upon Request

**Class Size:** 30

**Training Hours:** 8

**Duration:** 1 Days

**CEUs:** 0.8

**Delivery Method:** Classroom Lecture & Exercises

**Intended Audience:**

This awareness-level one-day course, presented by nationally recognized authorities is designed for managers responsible for developing, reviewing or implementing MARSSIM survey plans.

**Course Description:**

The Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM) is a DOD, DOE, EPA, and NRC technical consensus guidance document that provides the methodology used to demonstrate compliance with dose- or risk-based regulations. This course supports the MARSSIM objective to bring about a nationally consistent approach for conducting radiation surveys and investigations at potentially contaminated sites nationwide.

Keeping the perspective of managers in mind, the following MARSSIM topics will be discussed:

- Overview of the Radiation Survey and Site Investigation Process
- Data Life Cycle
- Integrated Survey Design
- Interpretation of results

In addition, a lessons learned session focuses on identifying and avoiding common pitfalls found in MARSSIM survey plans. Handouts, references, and a copy of the MARSSIM manual are provided. Participants will receive .8 Continuing Education Units (CEUs) for completion of this course.

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## Environmental Restoration

### **RTII 429 Cleanup SITE CLOSURE: Integrating Regulatory and Administrative Activities**

*Note: Course prices are current as of publication date, however they are subject to change without notice. Please contact RTI for current information.*

**Per Person Price:** \$1088

**Firm Fixed Price:** Available Upon Request

**Class Size:** 35

**Training Hours:** 16

**Duration:** 2 Days

**Delivery Method:** Classroom Lecture & Exercises

#### **Intended Audience:**

DOE contractor and commercial personnel who are involved in the planning and implementation of closure and post-closure care activities at hazardous and mixed waste management facilities and/or environmental restoration projects. Students with a basic understanding of the RCRA/CERCLA program, and other waste management programs will gain the most from this course. Staff involved with closure from other disciplines (e.g., budget planning, contracts management, long-term care and stewardship implementation) could also benefit.

#### **Course Description:**

The course will first provide a regulatory overview of the closure and post-closure care requirements of the Resource Conservation and Recovery Act (RCRA) and Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Also, the course will discuss closure and post-closure care requirements for specific waste management units such as landfills, storage pads, as well as areas contaminated as a result of past releases of contaminants such as areas of contamination and solid waste management units. The course will then discuss new, effective ways to plan for the integration of closure among units regulated under different programs, including how to incorporate a wide range of institutional control and business closure activities into their planning activities. Examples of these issues include records management, post-contract liability, and transition to the stewardship phase.

Topics covered include:

- CERCLA action completion, construction completion, NPL deletion and partial deletion, and five-year reviews and associated documentation;
- RCRA hazardous waste management unit closure, including clean and risk-based closure, unit specific requirements for closure, closure of mixed and radioactive waste units, and associated documentation;
- Techniques for conducting integrated planning of closure and post-closure care activities when RCRA, CERCLA, or both programs apply at a site;
- Institutional controls implementation;
- Business closure activities including end state planning, site workforce planning, work scope management, and administrative closeout; and
- Case studies to illustrate each of these major points.

#### **Prerequisites:**

None; however, students should have a basic understanding of RCRA/CERCLA requirements.

#### **Comments:**

DOE Technical Qualification Program Competencies Supported:

Waste Management

Environmental Compliance

Environmental Restoration

Decontamination & Decommissioning

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Waste Management

**Waste Management**

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## Waste Management

### **RTII 119 Waste Characterization**

*Note: Course prices are current as of publication date, however they are subject to change without notice. Please contact RTI for current information.*

**Per Person Price:** \$1088

**Firm Fixed Price:** Available Upon Request

**Class Size:** 30

**Training Hours:** 16

**Duration:** 2 Days

**Delivery Method:** Classroom Lecture & Exercises

**Intended Audience:**

Federal and contractor employees with responsibility for characterizing or overseeing the characterization of waste.

**Course Description:**

The Waste Characterization Course was developed to provide training to all DOE personnel on the regulations and specific details of fully characterization waste generated in DOE facilities. The course includes a review of terminology and regulations pertaining to waste characterization. Considerable focus is given to hazardous waste identification, identifying PCBs, and to characterization of waste containing radionuclides. The course also includes a review of waste packaging requirements. Participants will complete practical exercises which target the course objective of characterizing waste given information on the waste and local procedures.

Topics covered include:

- Materials Characteristics
- Identifying Hazardous Waste
- Identifying PCBs
- Identifying Radioactive and Mixed Waste
- Meeting Waste Acceptance Criteria
- Waste Packaging

**PREREQUISITES:** None

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## Waste Management

### **RTI 319 Mixed Waste Short Course**

*Note: Course prices are current as of publication date, however they are subject to change without notice. Please contact RTI for current information.*

**Per Person Price:** \$855

**Firm Fixed Price:** Available Upon Request

**Class Size:** 30

**Training Hours:** 8

**Duration:** 1 Days

**CEUs:** 0.8

**Delivery Method:** Classroom Lecture & Exercises

**Intended Audience:**

DOE and contractor personnel involved with the identification, characterization, storage, treatment, disposal, or transportation of mixed (hazardous and radioactive) waste. Individuals concerned only with radioactive or hazardous waste (non-mixed regulated wastes) would also find the course useful.

**Course Description:**

This 1-day course presents DOE's mixed waste management challenges and discusses the regulatory requirements and DOE's approach for managing mixed waste, including treatment, storage, and disposal for: mixed high level waste; mixed transuranic waste; and mixed low level waste. Information is provided through lecture, discussion, and breakout groups, and students receive a detailed manual suitable for future use as a handy reference. Because it is the major law in mandating what materials are considered mixed wastes, significant time is spent on the Resource Conservation and Recovery Act (RCRA), and how and when it applies to DOE's waste streams. Students learn about land disposal restrictions and best demonstrated available technologies, as well as how to recognize a mixed waste. These concepts are crucial to ensure regulatory-compliant and cost effective mixed waste management. The course also identifies waste minimization techniques and treatment technologies, and discusses the role of recycling in mixed waste management and DOE's disposal plans for mixed waste. This class is particularly helpful to employees who are dealing with DOE's wastes that are a "legacy" of the cold war, or who will be involved in decontamination and decommissioning projects or other environmental restoration activities. Personnel involved in procurement of mixed waste characterization services or the design of mixed waste treatment facilities will also benefit from this class. In addition, this class makes an excellent add-on to the 3-day Environmental Laws and Regulations Class.

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## Waste Management

### **RTI 356 DOE 435.1 Radioactive Waste Management Training**

*Note: Course prices are current as of publication date, however they are subject to change without notice. Please contact RTI for current information.*

**Per Person Price:** \$1595

**Firm Fixed Price:** Available Upon Request

**Class Size:** 35

**Training Hours:** 24

**Duration:** 3 Days

**CEUs:** 2.4

**Delivery Method:** Classroom Lecture & Exercises

**Intended Audience:**

DOE and contractor personnel responsible for or directly involved in the implementation of DOE O 435.1, Radioactive Waste Management.

**Course Description:**

In July 1999, the Department of Energy (DOE) issued a revised Directive on managing radioactive waste. DOE Order 435.1, Radioactive Waste Management, with its associated Manual and Guidance documents, reflect advances in radioactive waste management practices and changes within the Department since DOE Order 5820.2A was issued in 1988.

Course that focuses on the roles, responsibilities, and requirements specified in DOE O 435.1. The course provides detailed instruction on the requirements of the revised Order, Manual, and Implementation Guide; outlines key changes; introduces compliance strategies; and provides opportunities for participants to apply the key requirements through student exercises.

The primary goal of this training is to support implementation of the requirements in DOE O 435.1. This includes application of principle mechanisms specified in the Order - the Radioactive Waste Management Basis, Integrated Safety Management System, and use of a performance-based approach.

The course consists of the five modules listed below:

- Introduction, Overview, and Goals
- Low-Level Waste
- Low-Level Waste Disposal
- Transuranic Waste
- High-Level Waste

The course modules are integrated to provide comprehensive coverage and minimize redundancy. Consequently, participation in all modules is necessary, in order to adequately complete the course. The course includes a final comprehensive exam. Participants will receive 2.4 Continuing Education Units (CEUs) for completion of this course.

**PREREQUISITIES:** None. Suggested Preparation- Working level knowledge of the technical aspects of radioactive waste management and disposal, as well as how a facility's Authorization Basis impacts and supports its design and operational requirements.

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# RTII 355 Polychlorinated Biphenyls Comprehensive Training

*Note: Course prices are current as of publication date, however they are subject to change without notice. Please contact RTII for current information.*

**Per Person Price:** \$1295

**Firm Fixed Price:** Available Upon Request

**Minimum Class Size:** 15

**Training Hours:** 24

**Duration:** 3 Days

**CEUs:** 2.4

**This course, as all others offered by RTI, can be delivered at your location with the purchase of 15 seats. Call (706) 951-5685**

## Course Description:

**Delivery Method:** Classroom Lecture & Exercises

**Intended Audience:** This course is intended for Regulators, Auditors or those in the field with a need for detailed knowledge of regulatory requirements and issues involving PCBs.

Course Description: This comprehensive course provides in-depth instruction on requirements of the TSCA PCB regulations. Special emphasis is placed on current and complex issues associated with PCBs. Regulatory issues associated with remediation of contaminated environmental media and structures, and the management of associated wastes, will be reviewed. Similarly, issues associated with deactivation and decommissioning of facilities and equipment will be examined, including those involving radioactive facilities. The course will address the effective use of risk-based approvals for management of PCB remediation wastes and PCB bulk product wastes. Special difficulties under the current regulation will be discussed, e.g., the unauthorized status of Non-Liquid PCBs such as PCB-containing caulking and paints, and the difficulties associated with their removal. Other topics to be addressed include issues associated with long-term storage and integrating TSCA/RCRA's requirements with those of other regulations. Recommendations and tips will be provided for use by representatives from regulatory agencies and from regulated facilities. Recent enforcement actions of note will also be discussed.

Learning modules include the following: Background PCB information (physical, chemical, and toxicological properties); 40 CFR 761 Subpart A - General (applicability, categorizing PCBs, establishing the PCB concentration, and determining whether material is a PCB waste); 40 CFR 761 Subparts B, E and F - Prohibitions and Authorizations (manufacture, processing, distribution in commerce, and use, exemptions, exemptions, trans-boundary shipments, and equipment servicing, reclassification, and inspection); 40 CFR 761 Subpart C – Marking; 40 CFR 761 Subparts B and D - Storage for Reuse and Storage for Disposal; Commercial Storage Approvals/Permits; 40 CFR 761 Subpart B - Burning Used Oil; 40 CFR 761 Subpart D - Disposal (general requirements, bulk PCB liquids, and PCB Items including gas pipeline

systems), 40 CFR 761.70-.75 Disposal Facility Approvals/Permits; 40 CFR 761.61 - PCB Remediation Waste, 40 CFR 761 Subpart D - PCB Bulk Product Waste and Other Wastes, 40 CFR 761.79 – Decontamination; 40 CFR 761.77, TSCA PCB Coordinated Approvals; Subpart G, PCB Spill Cleanup Policy; and 40 CFR 761 Subparts J and K – Record keeping, Reporting, and Notification

A quiz after each section offers in-class opportunities to apply the knowledge acquired and to evaluate student learning.

For additional information, please contact our Training and Registration Center at (706) 951-5685 or visit our website at [www.rti.org](http://www.rti.org)