



## **RADIATION AND WEAPONS OF MASS DESTRUCTION (WMD) AWARENESS FOR FIRST RESPONDERS**

This course provides an important overview of the principles of radiation, nuclear power plants, nuclear materials, nuclear wastes, Nuclear/ Radiological Weapons of Mass Destruction (WMD) Terrorism, and Nuclear/ Radiological Incident Emergency Response and Management. This course offers practical awareness-level exercises and a comprehensive test to assist first responders, personnel, and technicians on the job.

*TOTAL TIME: 8 HOURS*

### **RAD-0302 SCHEDULE**

- Radiation
  - Definitions
  - Properties
  - Sources
  - Exposure Pathways
  - Impacts
  - Biological Effects
  - Entry Considerations
  - Risk Assessment
  - Shielding Concepts
  - Dosimetry
  - Calculations
  - Containment
  - Personal Protective Equipment (PPE)
  
- Nuclear Power Plants
  - Types
  - Accidents
    - Three Mile Island
    - Chernobyl
  - Next-Generation Reactors
  - Emergency Planning and Preparation
  
- Nuclear Materials
  - By-product materials
  - Medical Usage
  - Mixed Oxide Fuel (MOX)
  - Uranium
    - Enrichment
    - Mill Tailings

ESRA Consulting Corporation  
1650 South Dixie Highway • Boca Raton, Florida 33432  
telephone: (561) 361-0004 • fax: (520) 844-8555  
<http://www.esracorp.com> • e-mail: [registration@esracorp.com](mailto:registration@esracorp.com)



- Nuclear Wastes
  - Classification
  - Sites
    - Generator/ Storage
    - Disposal
  
- Transportation
  - Design
  - Containment
- Nuclear/ Radiological WMD Terrorism
  - Conventional Weapons
    - Definitions
    - Properties
    - Management
    - Emergency Response
  - Radiological Dispersal Device ("Dirty Bombs")
    - Definitions
    - Properties
    - Management
    - Emergency Response
- Nuclear/ Radiological Incident
  - Emergency Response
  - Management
- Review
- Test
- Solutions
- Course Evaluation

A one-hour lunch break is provided.

All students may receive:

- Seminar Workbook
- Certificate of Completion (to participants who achieve 80% or higher on the final test)
- Certificate of Attendance (to participants who do not achieve 80% or higher on the final test).

Students must be present for the entire duration of the class to receive a certificate.

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## REGISTRATION

Full Name: \_\_\_\_\_

Title/ Position: \_\_\_\_\_

Name Tag: \_\_\_\_\_

Company/ Institution/ Organization: \_\_\_\_\_

E-mail: \_\_\_\_\_

Telephone: \_\_\_\_\_

Fax: \_\_\_\_\_

Billing Addressee: \_\_\_\_\_

Street Address: \_\_\_\_\_

City: \_\_\_\_\_

State: \_\_\_\_\_

Zip Code: \_\_\_\_\_

Shipping/ Mailing Address: (where ESRA will send receipt and confirmation)  
Check if *same as above*: \_\_\_\_\_

\_\_\_\_\_

City: \_\_\_\_\_

State: \_\_\_\_\_

Zip Code: \_\_\_\_\_

Course Title: \_\_\_\_\_

Course Number: \_\_\_\_\_ - \_\_\_\_\_ Dates of Preference \_\_\_\_\_ 2005

Location \_\_\_\_\_

Payment Total: US \$ \_\_\_\_\_

Payment Type: \_\_\_\_\_ Check (payable to ESRA) \_\_\_\_\_ Money Order

**Fax this form to: (520) 844-8555**

**Send payment to:** ESRA Consulting Corporation  
Training Division  
1650 South Dixie Highway, Third Floor  
Boca Raton, Florida 33432

**Payment is due 15 days prior to the course date.**

**Cancellation Policy:** The course fee (minus a \$100 handling charge) will be refunded for cancellation notice received fourteen (14) days prior to the course date. The fee is transferable to another course within twelve (12) months after that date.

**Other Terms and Conditions:** In an effort to commit to the highest quality services, ESRA requires groups to have a minimum of ten (10) people per course. Additional charges apply to other locations, including corporate sites, outside the Boca Raton, Florida areas. Please call (561) 361-0004 for further details.