



## SU-907

# Special Nuclear Material (SNM) First Response Training



### DESCRIPTION

Special Nuclear Material (SNM) is a unique concern for everyone. In this course we will explore the characteristics of SNM, how to detect it, how to handle it, and where it comes from. We will also delve into why SNM is not easy to obtain and how difficult is it to put into use. In this course you will discover why it is so difficult to detect and learn the radiological, chemical, and toxicity concerns when dealing with SNM.

### HOW YOU WILL BENEFIT

You will expand your knowledge of SNM and gain a deeper understanding of the associated risks and detection methods used. Learn what to look for when responding to incidents that may involve SNM or similar materials. See how past incidents have occurred which will pose the question, are you prepared to handle such incidents.

### WHO SHOULD ATTEND

Emergency response organizations; local and federal agencies; military, health departments, government, etc.; any individuals or organizations concerned about this subject.

### PREREQUISITES

Intermediate to advanced understanding of radiation

### COURSE CONTENT

- Review of Radiation Fundamentals
- SNM Characteristics
- SNM Safe Handling Practices
  - Good work practices
  - PPE (Personal Protective Equipment)
  - Safety
  - Criticality safety
- SNM Production (Uranium Enrichment and Plutonium Production)
- SNM Detection and Interdiction
  - Gamma and neutron emissions
  - Interdiction issues
    - Improvised nuclear devices
      - Ship effect
      - Peak masking
      - Detector types - resolution
- Accidents Involving SNM
  - What might happen
  - Radiological risks
  - Non-radiological risks
  - Working the scene – establishing zones
  - Rescue operations
- Surveying SNM Contaminated Areas
  - Types of survey
  - Survey maps
  - Quick field checks
  - Fire involving radiological materials
- Case Studies of SNM Dispersal Incidents
- Tabletop Exercises