



# RRI's Advanced Class 7 Packaging Workshop



Course 306

**Length:** 2 days

**Target:** Personnel responsible for, or involved with, the creation of the packaging purchase specification; packaging selection; packaging inspection; packaging filling, assembly and closure; and documentation surrounding such packaging.

**Prerequisite:** RRI's DOT Hazardous Materials & Radioactive Materials Transport Workshops (Courses 201 & 203, or Course 303)

**Intensity:**  Mild  Medium  Challenging  Extreme

**Materials:** RRI provides all training materials including the 49 CFR 100-185 and applicable letters from the regulators. A course completion certificate is provided to each participant.

## Objectives & Topics:

### Module 1: General Packaging and Packaging Requirements – Ground

*State the minimum design requirements prescribed for packages intended for ground transport of radioactive materials.*

1. Apply the requirements for forbidden materials and packages to Class 7 packages.
2. State the general requirements for all packagings and packages.
3. State the additional requirements for all non-bulk packagings and packages.
4. State the additional requirements for all bulk packagings and packages.
5. State the general design requirements applicable to all Class 7 packagings and packages.

### Module 2: Additional Package and Packaging Requirements – Air

*State the additional design requirements prescribed for packages intended for air transport of radioactive materials.*

1. Identify the additional design requirements applicable to all packagings and packages intended for transport by air.
2. Identify the additional design requirements applicable to Class 7 packagings and packages intended for transport by air.

### Module 3: Industrial Package Design Requirements

*State the design requirements prescribed for Industrial Packages intended for transport of radioactive materials.*

1. State the design requirements applicable to IP-1 packages.
2. State the design requirements applicable to IP-2 packages.
3. State the design requirements applicable to IP-3 packages.

### Module 4: Type A Package Design Requirements

*State the design requirements prescribed for Type A packages intended for transport of radioactive materials.*

1. Identify the design requirements for Type A packages intended for solid contents.
2. Identify the design requirements for Type A packages intended for liquid contents.
3. Identify the design requirements for Type A packages intended for gases.
4. State the two additional consideration that may affect design of a Type A package.



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## Module 5: Type B Package Design Requirements

*State the design requirements prescribed for Type B packages intended for transport of radioactive materials.*

1. Identify the general requirements for Type B packages designed to meet normal conditions of transport.
2. State the differences between Type A package design standards and the general standards for Type B packages designed to meet normal conditions of transport.

## Module 6: Package Test Procedures

*Summarize the test procedures for packages intended for the transport of Class 7 material.*

1. Recognize the difference between the responsibilities for Class 7 package manufacturers and users of such package.
2. List the tests required for a given Class 7 package.
3. State the concerns for selecting a Class 7 package test facility.
4. Recognize the performance tests required for Class 7 packages subject to normal conditions of transport.
5. Identify the pass criteria for packages tested to normal conditions of transport.
6. Recognize the performance tests required for Class 7 packages subject to hypothetical accident conditions.
7. Identify the pass criteria for packages tested to hypothetical accident conditions.
8. List four methodologies for demonstrating compliance to the ability of a Class 7 package to meet performance test requirements.
9. Appreciate the records and documentation required for a given Class 7 package type.

## Module 7: Selection of Optimal Package Types

*Select the package type options for a given radioactive material.*

1. Select appropriate package type(s) for the material, based on content limits and material type.
2. Recognize the constraints imposed by the Regulations for the radioactive material package types.
3. Recognize the advantages in packaging which may result from classifying material as LSA material or objects as SCO.
4. Recognize the additional constraints imposed by the regulations on fissile material.
5. Recognize the constraints for used Type B packaging for <Type B activities.

## Module 8: Quality Assurance and Other Considerations

*Recognize the importance of a quality assurance program and other considerations in all aspects of radioactive materials packaging and transport.*

1. List the minimal elements important to a package user's QA program.
2. State the importance of each QA element in a package user's program.
3. Identify the necessary Competent Authority notifications required for the use of a given package.