



## Course 305

**Length:** 2.5 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 Packaging and Transport Workshop (Courses 201 or 301)

**Intensity:**      Mild            Medium            Challenging            Extreme

**Materials:** RRI provides all training materials including the latest Mangan Communications, Inc. 49 CFR 100-185 and applicable letters from the regulators. Testing and course completion certificate are also provided.

### Objectives & Topics:

#### Module 1: **Introduction and Definitions**

*Recognize how packaging is subject to the Hazardous Materials Regulations (HMR) and how packaging terms used in the HMR are defined.*

1. Identify how packaging and functions regarding packaging are subject to the HMR.
2. Locate and apply the definition of a given packaging and package term used in the HMR.

#### Module 2: **General Package and Packaging Requirements – Ground**

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

1. Apply the requirements for forbidden materials and packages to all hazmat packages.
2. State the general requirements for all packaging and packages.
3. State the additional requirements for all non-bulk packaging and packages.
4. State the additional requirements for all bulk packaging and packages.
5. Identify the additional design requirements applicable to packaging and packages intended for transport by air.

#### Module 3: **UN Package Design & Test Requirements**

*State the design and test requirements prescribed for UN Packages intended for transport of hazardous materials.*

1. Identify the design requirements and limits for UN packaging.
2. List the tests required for UN packages.
3. Recognize the performance tests required for UN single and composite packages.
4. Recognize the performance tests required for UN combination packages.
5. State the pass criteria for a given UN package test.



### Module 3 (continued)

6. Identify the requirements for the marking of the UN packaging certification on a given packaging type.
7. Decipher the UN packaging certification code marked on a UN packaging.
8. Recognize the difference between the responsibilities for UN packaging manufacturers and users of such packaging.
9. Recognize the variations applicable to UN tested package configuration.
10. Identify the importance for evaluating changes in a packaging design.
11. Appreciate the records and documentation required for a given UN package type.

### Module 4: Selection of Optimal Package Types

*Select the packaging type options for a given hazardous material.*

1. Select appropriate packaging type(s) for the material, based on content limits and physical properties.
2. Recognize the constraints imposed by the Regulations for the hazardous material packaging types.
3. Recognize the advantages in packaging which are authorized by a selective testing variation.

### Module 5: User Requirements

*Recognize the importance of a selection, use, and validation in achieving a regulatory compliance hazardous materials packaging program..*

1. Recognize the responsibility the user has during the packaging selection step process.
2. Apply the requirements and limits for the proper and compliant use of a given packaging.
3. List the necessary elements in a QA program necessary to ensure compliance is achieved in practice.