
Course Syllabus:

HMT-0320

Transport of Dangerous Goods by Air (HMT-0320)



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Overview

This course is intended for those persons and facilities that receive handle or ship hazardous materials by air.

Goals

This course fulfills the U.S. Department of Transportation's hazardous materials transportation training requirements for: (1) general awareness and familiarization; (2) general safety; (3) hazardous materials security awareness; and (4) function-specific training for the following transportation and pre-transportation functions:

- Determining the hazard class of a dangerous goods;
- Selecting a limited quantity dangerous goods packaging;
- Filing a limited quantity dangerous goods packaging;
- Securing a closure on a filed or partially filled limited quantity dangerous goods package;
- Marking a package to indicate that it contains a dangerous goods in limited or excepted quantities;
- Preparing a shipping paper for limited or excepted quantities, if applicable;
- Providing and maintaining emergency response information, when required;
- Reviewing a shipping paper to verify compliance with the HMR
- Certifying that a hazardous material conforms to the requirements of the HMR and the International Civil Aviation Organization
- Loading, blocking, and bracing a hazardous materials package

Lesson Topics

Module 1 – Introduction

Introduction
Course Overview
Course Objectives
Navigation
WBT Library
Glossary
Learning Assessments
Additional Information

Materials

Computer (PC, laptop)
Internet Connection: High Speed

Requirements

You should print and maintain a copy of this course syllabus and overview on file at your facility. It is recommended that you provide a copy of this document in the event of a regulatory agency (e.g., OSHA) inspection.

Evaluation

Upon completion of the course of instruction, a comprehensive examination will be offered. In order to earn a Certificate of Completion, you must receive at least 80% on the exam. The exam is comprised of at least 10 questions, randomly selected from a database of questions and address each of the lesson topics covered in the course.

Lesson Topics – cont'd

Module 2 – Chemical Hazards

- Overview & Regulatory Requirements
- Hazardous Materials Overview
- Consequences
- Responsibilities
- Training Requirements
- Regulatory Authorities
- 49 CFR subchapter C
- ICAO Technical Instructions
- IATA Dangerous Goods Regulations
- Learning Assessment

Module 3 – IATA DGR Construction

- ICAO Technical Instructions
- Alignment with 49 CFR subchapter C
- IATA DGR Outline
- Lesson 2 Chapter 1
- Chapter 2
- Chapter 3
- Chapter 4
- Chapter 5
- Chapter 6
- Chapter 7
- Lesson 3 Dangerous Goods List
- Packing Instructions
- State Variations
- Operator Variations
- Checklists
- Competent Authorities
- Index
- Learning Assessment

Module 4 – Classification

- Accident History
- Texas City, TX- 1947
- Bhopal, India- 1984
- ValuJet 592- 1996
- Physical & Chemical Properties
- Explosive
- Corrosive
- Flammable
- Combustible
- Reactive
- Radioactive
- Toxic
- Elevated Temperature
- Elevated Pressure
- International Classification
- Class 1- Explosives
- Class 2- Gases
- Class 3- Flammable Liquids
- Class 4- Solids
- Class 5- Oxidizers & Organic Peroxides
- Class 6- Toxic Materials
- Class 7- Radioactive Materials
- Class 8- Corrosive Materials
- Class 9- Miscellaneous Dangerous Goods

Module 5 – Dangerous Goods List

- Arrangement
- Columns A-N
- Numerical Cross-Reference
- Proper Shipping Name
- Prefixes
- Qualifying Words
- Synonyms
- Alternate Spellings
- Technical Names
- Basic Description
- I-S-H-P Sequence
- Special Provisions
- Packing Instructions
- Authorizations
- Specific Instructions
- State Variations
- U.S. Variations
- Ocean
- Learning Assessment

Module 6- Packing & Packaging

- Forces Encountered in Transportation
- Package Selection
- Package Condition
- Liquids
- Small Packagings
- Authorized Packagings
- Combination Packagings
- UN POP Marking
- Drop & Stacking
- Leakproofness
- Hydraulic
- DOT Marking
- Cylinders
- Non-Specification Packaging ('Strong' Outer Packaging)
- Manufacturers Symbol (Box Maker's Certificate – BMC)
- Burst Strength
- Edge Crush Test
- Packing
- Damaged Packaging
- Packaging Evaluation
- Repackaging
- Learning Assessment

Module 7- Hazard Communication

- Marking
- Proper Shipping Name(s)
- Technical & Chemical Name(s)
- Identification Number
- UN or DOT Specification
- Packaging Marking
- Labeling & Marking
- Hazard Warning
- Primary Risk Subsidiary Risk(s)

Limited Quantity Determinations
Labeling Requirements
 Cargo Handling
 Orientation Arrows
 Special Marks
 Excepted Quantities Mark
 Overpack Mark
 Package Marking & Labeling
 T-U-L-I-P
 Practical (Interactive) Exercise
Overpacks
 Unit Loads
 P-I-L-O-T
 Unit Loads
 Cages
 Placarding
 Placarding Requirements
 Placarding Exceptions
 Limited Quantities
 New Limited Quantity Marking
 Consumer Commodity
 Excepted Quantities
 Placarding
 Marine Pollutant Marking
 Non-Reusable Packagings
 Learning Assessment

Module 8- Documentation

Basic Description
Alternative Description Formats
Required Information
Additional Descriptive Information
Emergency Response Information
Emergency Response Telephone Number
Emergency Response Information
ERT Service Providers
Emergency Schedules (EmS)
Medical First Aid Guides (MFAG)
Reporting
Shipping Certification
 Container Packing Certificate
 Dangerous Cargo Manifests
 Other Required Documentation
Carrier Specific Information
Recordkeeping Requirements
Learning Assessment

Module 9- Transport Operations

Storage & Loading
Packing Cargo Transport Units
Stowage
 Stowage Categories
 Special Stowage Requirements
Living Quarters
Mail
Reactive Materials
Marine Pollutants
Foodstuffs
Dry Ice

- Excepted Quantities
- Stowage
- Segregation
- Segregation Groups
- Segregation within Cargo Transport Units
- Segregation Onboard Containerships
- Stow Plans
- Learning Assessment

Module 10- HM Security

- HM Security Requirements
- HM-232
- Applicability
- HM Security Plan Requirements
- High Consequence Shipments
- Security Plan Elements
- Personnel Security
- Site Security
- En Route Security
- Training
- Module Assessment
- Final Exam Preparation**
- Certification Exam Code