

## XIV. Hazardous Materials Transportation

### 1.0 General

1.1 The US Department of Transportation (DOT) and the International Air Transport Association (IATA) have detailed regulations for shipping hazardous materials or dangerous goods. When shipping within the United States or Internationally, it is critical to comply with all shipping regulations to protect the shipper, the carrier, and the environment to prevent stiff penalties from being imposed.



1.2 All ‘hazmat employees’ require some level of training specific to the transportation-related function they perform (i.e. classification, packaging, marking, labeling, paperwork, etc). It is crucial that Texas A&M University at Galveston (TAMUG) personnel responsible for shipping are properly trained to package and ship their materials.

### 2.0 The Regulations

2.1 The Hazardous Materials Regulation (HMR) Parts, 171 – 180 of Title 49 CFR contain all the regulations pertaining to the transport of hazardous materials. The purpose of the HMR is to provide the shipper with instruction on how to properly package, mark, label and document a hazardous material to be placed in commerce (i.e. ground, air, water and rail).

2.2 The International Air Transport Association’s Dangerous Goods Regulation is the guide that is recognized by all airlines that carry dangerous goods in all countries. This regulation provides procedures for the shipper and the operator by which Dangerous Goods can be safely transported by air on all commercial air transport.

2.3 Both regulations serve the same purpose, to provide safety to the shipper and carrier and to minimize the risk of contamination to the environment.

### 3.0 Who Needs Training?

3.1 A “hazmat employee” is a person who is employed by a hazmat employer (TAMUG) and who directly affects hazmat transportation safety. At TAMUG this is a person who:

3.1.1 Loads, unloads, or handles hazardous materials;

3.1.2 Classifies hazardous materials, prepares hazmat packages and/or shipping papers for transport by carriers; and/or

3.1.3 Is responsible for safely transporting hazardous materials in university vehicles.

#### 4.0 What Training is Offered?

4.1 Only trained persons may ship or receive shipments of hazardous materials / dangerous goods. The following trainings are available through Environmental Health and Safety:

4.1.1 General Awareness – This training enables the employee to recognize and identify hazardous material shipments. The training is consistent with the hazard communication program required by 49 CFR.

4.1.2 Dry Ice Shipping – This training is specific to shipments of Dry Ice. Dry Ice is a regulated hazardous material / dangerous good when shipped by air and therefore requires special packaging, marking and labeling.

4.1.3 Limited Quantities – Limited quantities are shipments that must meet specific requirements (e.g. a specific amount) in order to be classified as a limited quantity shipment. This training will assist in classification, packaging, marking, labeling and documentation of a limited quantity shipment.



4.1.4 Excepted Quantities – These shipments are materials that are less than 30 milliliters or 30 grams of a hazardous material. This training will assist in classification, packaging, marking, labeling and documentation of a limited quantity shipment.

4.1.5 Function Specific Training – Function specific training is for individuals shipping specific hazardous materials repetitively and focuses on the needs of the shipper. This training is available as requested and developed for the specific needs of the shipper.

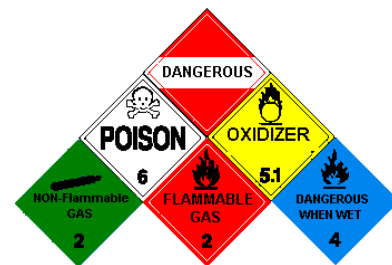
4.1.6 Annual Contracted Training – A 40 hour Hazardous Material Transportation course is offered at the beginning of each year. Each department that ships hazardous materials is encouraged to have at least one person attend the 40 hour course. The training consists of 24 hours of 49 CFR, eight hours of the IATA Dangerous Goods Regulation, eight hours of Infectious Substance Training or Radioactive Material Training.

- 4.1.7 Refresher Training – DOT requires refresher training every three years. IATA requires refresher training every two years. To ensure Texas A&M at Galveston meets the refresher training requirements as required by both regulations, the Texas A&M Hazardous Materials Shipping Program requires anyone shipping hazardous materials to be retrained every two years.

## 5.0 Hazardous Materials Defined

- 5.1 Hazardous materials mean a substance or material that the Secretary of Transportation has determined is capable of posing an unreasonable risk to health, safety, and property when transported in commerce, and has been designated as hazardous under Section 5103 of the Federal Hazardous Materials Transportation Law (49 U.S.C. 5103). Hazardous materials, for the purpose of transportation, are those in one or more one of the following groups:

- 5.1.1 Explosive materials
- 5.1.2 Gases
- 5.1.3 Flammable liquids
- 5.1.4 Combustible liquids
- 5.1.5 Flammable or & water-reactive solids
- 5.1.6 Oxidizers
- 5.1.7 Poisonous materials
- 5.1.8 Infectious materials
- 5.1.9 Radioactive materials
- 5.1.10 Corrosive materials
- 5.1.11 Miscellaneous hazardous materials



## 6.0 DOT Requirements Simplified

- 6.1 The DOT regulations stipulate
- 6.1.1 how a hazardous material is **packaged** (e.g., cardboard box, metal drum);
  - 6.1.2 how the package is **marked**--what words are written on the side;
  - 6.1.3 how the package is **labeled**--what colored diamond-shaped label is applied;
  - 6.1.4 how the material is **described** on shipping papers, which are required for shipment.
    - 6.1.4.1 This information is summarized in the Hazardous Material Table in section 172.101 of the DOT regulations
    - 6.1.4.2 It is important to note that just because the material you are shipping is not listed in the hazardous materials table does not imply that the material you are shipping is not regulated.

6.1.4.3 If you are unsure of the classification of your material, always contact EHS.

## **7.0 Hazardous Materials Shipping Questions**

7.1 For assistance in resolving questions about the proper shipment of hazardous materials contact

7.1.1 Environmental Health and Safety – (409) 741-4029

**END OF SECTION**