

## The importance of properly classifying and shipping hazardous materials

In 2004, the Federal Aviation Administration (FAA) closed 439 civil penalties and collected \$4.5 million in fines. The fines included such violations as shipping undeclared hazardous materials aboard aircraft and shipping hazardous materials by untrained employees. The civil penalties for these violations can be as high as \$32,500 per violation. In addition to civil penalties, criminal penalties may be levied if the violations were deemed to be intentional. This could result in fines up to \$500,000 for corporations and the possibility of jail time. A majority of the time, shipping incidents can be directly attributed to human error, which can be avoided by properly training employees involved with hazardous materials transport. Here are several examples of violations and the severity of penalties that have been assessed:

- Most people are aware of the Federal criminal indictments brought against SabreTech and three of its managers for illegally shipping oxygen generators aboard ValuJet Flight 592. The oxygen generators ignited, causing the aircraft to crash, killing all aboard. One of the indictments was for failing to properly train the personnel responsible for handling the generators and offering them for shipment. The state of Florida charged SabreTech managers with third-degree murder and manslaughter in the incident, which killed 110 people.
- A shipper was fined \$82,000 for failure to properly package an infectious substance. The shipment consisted of an undeclared infectious agent that spilled after it was unloaded from the aircraft. The shipper had not classified, packaged, marked, labeled or declared the shipment and had not notified the CDC as required by 42 CFR Part 72.
- The FAA fined a company \$75,000 for offering a shipment containing undeclared hazardous materials. The shipment consisted of three parcels containing acrylamide, acetonitrile, dimethyl sulfoxide, and ammonium persulphate. The contents of the shipment created a spill. The next day, the same company offered a similar shipment containing acrylamide and ammonium persulphate. Both shipments were not properly classified, packaged, marked, or labeled, were undeclared and were not accompanied by a Shipper's Declaration for Dangerous Goods.

It is clear that governmental regulators intend that these highly visible cases serve as a warning to shippers to comply with the various laws on the shipment of hazardous materials. One common element of the examples used above is the failure to properly classify or declare hazardous materials. This is the most important step in the shipment of hazardous materials since everything involved with the shipment stems from the

classification of the material as either hazardous or non-hazardous. EHS personnel involved in the transport of hazardous materials are trained to classify materials according to Department of Transportation (49 CFR Parts 100-185) regulations for ground transport and International Air Transport Association (IATA) Dangerous Goods Regulations for air transport based on information supplied by the investigators. Clearly, it is vitally important that the Request for Shipment (RFS) forms are completed accurately and comprehensively. Listed below are items that EHS needs to know in order to properly classify your shipment:

- 1) Is the material infectious? If yes, what is the infectious material?
- 2) Is the material being shipped for testing for the presence of infectious material? If yes, what is it being tested for?
- 3) Does the material include micro-organisms or organisms containing recombinant DNA?
- 4) Is the material fixed in anything? If yes, what is the name and concentration of fixative (e.g., 70% ethanol)? Attach Material Safety Data Sheet (MSDS).
- 5) Is the material a chemical (e.g., reagents, drugs, synthesized products, natural products)? Give the complete name of the chemical. Abbreviations are never to be used. MSDS' are required for all chemicals whether they are commercially obtained or laboratory made. Blank MSDS forms are available through EHS. EHS will contact the requestor to verify name of the material and the way it is handled in the laboratory.
- 6) Is the material radioactive? If yes, what is the name, amount and activity of the isotope?

Proper classification of shipments assures continued compliance with Federal and International shipping regulations. As the shipping requestor, remember that your role is to provide EHS with an accurate and comprehensive RFS form. Any questions or concerns should be directed to EHS, ext. 1451 or transportation, ext. 5823.