

Hazardous Materials Shipping and Transportation

Policy Statement

It is good policy to ship and transport hazardous materials, referred to as “dangerous goods” safely and in compliance with the rules and regulations put out by the US Department of Transportation (US DOT), the International Air Transportation Association (IATA), and other regulatory agencies. Under these regulations only certified and properly trained individuals are allowed to ship or transport hazardous materials. Noncertified individuals are authorized to ship or transport hazardous materials only with proper training, and only with the knowledge and approval of a supervisor who has completed ES&H awareness level training. Hazardous material shipments originating from the facility must be fastened with an ES&H hazardous materials shipping label by a certified shipper and shipped only from approved locations.

Who Is Affected by This Policy?

- Staff who transport hazardous materials or handle hazardous materials related to transportation (such as storeroom personnel)
- Staff initiating or authorizing the shipment of hazardous materials or otherwise having a role in the shipping of hazardous materials

Who Administers This Policy?

- Office of Environment, Safety & Health (program coordination and oversight)
- Principal Investigators and Supervisors (program implementation)

Why We Have This Policy?

Some employees occasionally have a need to ship packages of hazardous materials through the mail or self-transport hazardous materials. If these employees are not trained or do not properly follow the shipping protocols as described in this policy, their actions may result in regulatory violations, injuries, accidents, loss of grant funding, fines, criminal consequences, and/or imprisonment.

Responsibilities

Office of Environment, Safety & Health (ES&H):

- Conducts regular audits for hazardous materials shipping compliance.
- Investigates hazardous materials shipping discrepancies and shipper-rejected shipments.
- Notifies responsible parties of any hazardous materials shipping discrepancies or regulatory actions affecting their operations, and shares “lessons learned” with other units as applicable.
- Reports deficiencies to regulatory agencies as required.
- Communicates the existence and components of this policy.
- Establishes and joins appropriate levels of training for hazardous materials employees.
- Provides or makes available approved hazardous materials training.

- Provides technical guidance upon request to campus units in the shipment of hazardous materials.
- Maintains and updates a campus hazardous materials shipping web site and a list of persons who have completed hazardous materials shipment training provided by ES&H.

Principal Investigators and Supervisors:

Develop and enforce internal procedures to comply with this policy, including procedures to maintain training, certification, and shipping records.

Support ES&H or regulatory agency audits and investigations, and pay associated fines and penalties for any departmental compliance deficiencies.

- Ensure that all “hazardous materials employees” (see glossary) obtain and maintain the appropriate level of documented training for their duties.
- Fund the costs of safe and compliant hazardous materials shipments.
- Ensure that all hazardous materials are identified, classified, packaged, and shipped safely and in accordance with applicable shipping regulations.
- Request assistance from ES&H if department personnel are not trained.

Procedures

Training and Certification

The facility’s hazardous materials employees must complete ES&H-approved training every two years appropriate to their level of responsibility. Supervisors and Principal Investigators who oversee operations involving the shipment and transportation of packages containing hazardous materials are to guarantee that only properly trained individuals handle and ship hazardous materials. Training topics include, but are not limited to: general awareness, function specific, personnel safety, and security awareness. Security awareness training is required for persons shipping or transporting certain high risk hazardous materials (see glossary for examples of high risk hazardous materials). ES&H provides a list of approved hazardous materials training vendors on the ES&H web site. Other vendors may not be used unless ES&H reviews and approves the training content. Supervisors shall certify the completion of initial and refresher hazardous material training for their employees and maintain documentation of successful completion.

Document Retention

Departments that ship hazardous materials must establish and maintain files which include copies of all shipping papers and training records. Hazardous materials shipping papers must be kept for at least 2 years after the date of shipment.

Supervisors are required to maintain hazardous materials employees’ training records for three years and for 3 months after employment ends.

Supervisors are required to maintain a list of hazardous materials employees and provide this list to ES&H or government agency personnel upon request.

Self Transport Via Air

ES&H must be provided with at least 10 working days’ notice prior to personnel taking hazardous materials on board an airplane. Personnel are prohibited from carrying hazardous materials on a plane without written approval from ES&H.

Separation and Segregation

Facilities involved in the shipping and transportation of regulated hazardous materials must ensure proper storage of these materials in compliance with the facility's related guidance documents.

Self Transport Via Ground

The movement of hazardous materials within the contiguous facility campus (i.e., not entering a public roadway) is not regulated per US DOT as a hazardous materials shipment, although training and safety precautions are still required. Transporting hazardous materials on public roads is prohibited unless it is in accordance with US DOT "Materials of Trade" regulations.

International Shipments

Prior to arranging an international shipment, refer to any of the facility's resources on export control. International shipments, whether imported or exported, may require permits and licensing authority. Shipping certain biological substances, for example, requires approval from the Centers for Disease Control and Prevention. ES&H must be provided with at least 20 working days' notice to assist with international shipments.

Additional Requirements Regarding Specific Hazardous Materials

Contact the ES&H Biosafety Officer, the Radiation Safety Officer, or the Hazardous Materials Shipping Specialist for assistance with these hazardous materials shipments:

- Dry Ice. Shipments containing dry ice are regulated when transported by air or overwater. Only trained and certified hazardous material shippers may prepare dry ice shipments. Quantity limits apply and vented packaging is required.
- Infectious Substances. Shipments containing an infectious substance are strictly regulated. Exempt biological shipments via air may require specific packaging requirements as well.
- Hazardous/Radioactive Wastes. Only employees who have a current hazardous materials endorsement (issued in California by the Department of Motor Vehicles) may transport hazardous wastes. ES&H must approve all hazardous and radioactive waste transportation.
- Other High Risk Hazardous Materials (see glossary): These materials can be shipped only after consultation with ES&H.
- Radioactive Materials. Per the campus Radioactive Material License, only ES&H employees may ship or transport radioactive materials.

Compliance Measurements and Goals

Successful compliance with this policy is measured by periodic ES&H audits. The campus goal is 100% compliance of all audited hazardous materials shipments.

Glossary

Dangerous goods: Interchangeable with the term “hazardous materials” and mainly used in connection with air shipments of regulated materials.

Hazardous Materials: Substances or materials that the Department of Transportation has determined to be capable of posing an unreasonable risk to health, safety, and property when transported in commerce. Examples of hazardous materials commonly used at many facilities include laboratory reagents, pool chemicals, lubricating oils, paint, batteries, infectious substances, dry ice, and hazardous/radioactive wastes.

Hazardous Materials Employee: A person who, in the course of employment, directly affects hazardous materials transportation safety. A person who handles or prepares (identifies, classifies hazardous materials, packages, marks, labels, or documents) hazardous materials packages, including the preparation of shipping papers, tenders hazardous materials into commerce, or who otherwise transports hazardous materials shipments.

Hazardous Materials Employer: A person (including a state agency) who employs or uses at least one hazardous materials employee on a full time, part time, or temporary basis, who transports hazardous materials in commerce; causes hazardous materials to be transported in commerce; or designs, manufactures, fabricates, inspects, marks, maintains, reconditions, repairs, or tests a package, container, or packaging component that is represented, marked, certified, or sold by that person as qualified for use in transporting hazardous materials in commerce.

Hazardous Materials Regulations: Department of Transportation regulations governing the transportation of hazardous materials *in commerce* are found in 49 CFR parts 171 through 180. The movement of regulated materials within contiguous facility property does not constitute a shipment in commerce.

Hazardous Materials Shipper: An individual, corporation, company association, firm, partnership, society, joint stock company, or a government, state agency, tribe, or authority of a government or tribe that offers a hazardous material for transportation in commerce or transporting a hazardous material to support a commercial enterprise, other than the U.S. Postal Service. Hazardous material shippers identify, classify, package, mark, label, document, and/or tender a hazardous material into transportation.

International Air Transportation Association (IATA): This organization works closely with governments in the development of regulations governing air shipment of hazardous materials.

Materials of Trade: Hazardous materials, other than hazardous waste, that are carried on a motor vehicle to directly support a principal business. Examples include landscaping, pest control, painting, plumbing, and welding. Employees handling materials of trade must have general knowledge of relevant regulations, quantity limitations, and packaging and labeling requirements.

Other High Risk Hazardous Materials:

- Select agents or toxins regulated by the Centers for Disease Control and Prevention, or select agents or toxins regulated by the United States Department of Agriculture; or
- A quantity of hazardous material that requires placarding.

- Explosives;
- Materials poisonous by inhalation;
- Bulk hazardous materials shipments;

Shipping: The process in which an employee identifies, classifies, packages, marks, labels, documents, and tenders the hazardous materials shipment to a transport carrier.

Transportation: The movement of property, including the loading, unloading, or storage incidental to that movement.

Regulated Materials: materials that pose an unreasonable risk when transported in commerce. Also known as materials “Regulated for Transportation.”

Related Documents

- International Civil Aviation Organization (ICAO) Technical Instructions/
- Code of Federal Regulations – (CFR) Title 10, NRC Regulations
- California Code of Regulations (CCR) Title 22
- International Air Transport Association (IATA), Dangerous Goods Regulations (DGR)
- DOT Emergency Response Guidebook
- Code of Federal Regulations – (CFR) Title 49, Transportation
- Code of Federal Regulations – (CFR) Title 40, Protection of the Environment