

RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION

GUIDELINES FOR TRANSPORTING ANTHRAX AND ANTHRAX-CONTAMINATED OBJECTS AND MATERIALS

What regulations apply to the transportation of anthrax and other infectious materials?

- < Requirements for transporting infectious substances in commerce are in the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180). The regulations apply to *commercial* transportation of all hazardous materials, including infectious substances. Note that transportation of an infectious substance by a federal, state, or local government agency or the military in a vehicle (e.g., truck, airplane) operated by a government or military employee is not subject to the HMR.
- < The International Civil Aviation Organization (ICAO) Technical Instructions for Safe Transport of Dangerous Goods by Air govern international air transportation of infectious substances. As an alternative to the HMR, infectious substances may be transported by domestic aircraft in accordance with the ICAO Technical Instructions.

Are there training requirements? To whom do the training requirements apply?

- < Under the HMR, persons who offer or transport anthrax or anthrax-contaminated material must be trained. Training requirements are in Subpart H of Part 172 of the HMR. Training must include:
 - General-awareness training for familiarity with HMR requirements
 - Function-specific training concerning HMR requirements applicable to the functions a person performs
 - Safety training for personal protection and avoiding accidents
- < Persons who respond to incidents involving anthrax must be trained. Training requirements are in regulations of the Occupational Safety and Health Administration (OSHA) at 29 CFR 1910.120

Transporting anthrax-contaminated powder or other material

A powder or other material known to contain or suspected of containing anthrax (bacteria or spores) must be classed as a Division 6.2 material and shipped as an infectious substance. (§ 173.134) Note that transportation of such a material by a federal, state, or local government agency or the military in a vehicle (e.g., truck, airplane) operated by a government or military employee is not subject to the HMR.

- < Packaging (§§ 173.196, 178.609). Use a triple packaging that is capable of meeting the performance requirements in § 178.609 of the HMR (e.g., drop tests, water immersion test) and consists of the following components:
 - Watertight primary receptacle
 - Watertight secondary receptacle
 - If material is liquid, sufficient absorbent material between the primary and secondary receptacles to absorb entire contents
 - Outer packaging of adequate strength for capacity, mass, and intended use
 - Itemized list of package contents must be placed between the secondary receptacle and the outer packaging.

- < Labeling (§ 172.400). Label the package with an INFECTIOUS SUBSTANCE label.

- < Marking (§ 172.301). Mark the package with the words “Infectious substance, affecting humans (bacillus anthracis), 6.2, UN 2814” and with the name and address of the consignor or consignee.

- < Shipping documents (§§ 172.202, 172.203, 172.204, 172.604). Prepare a shipping paper that includes the following information: “Infectious substance, affecting humans (bacillus anthracis), 6.2, UN 2814” and the quantity being shipped. Include the following certification: “This is to certify that the above-named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.” Also, include an emergency telephone number that is manned by a person familiar with the material being shipped and with emergency measures to be taken in the event of a leak or other emergency.

Transporting diagnostic specimens

- < For purposes of the HMR a “diagnostic specimen” is any human or animal material being shipped for purposes of diagnosis. Diagnostic specimens are excepted from all HMR regulatory requirements (§ 173.134(a)(2) and (b)(1)(i)). Thus, blood samples or nasal swabs from persons suspected to be infected with anthrax that are being shipped for testing are not subject to HMR requirements.

- < Most U.S. airlines require domestic shipments to be prepared in accordance with the ICAO Technical Instructions. The ICAO Technical Instructions **DO NOT** except diagnostic specimens from regulatory requirements. Thus, if you are shipping a blood sample or nasal swab from a person suspected to be infected with anthrax by air, you must ship the specimen as an infectious substance and must adhere to all packaging, labeling, marking, and shipping documentation requirements.

Transporting anthrax-contaminated objects

- < The best way to handle an anthrax-contaminated object is to destroy it on site.
- < If on-site destruction is not possible, you should make every effort to decontaminate an anthrax-contaminated object before you transport it for additional handling or disposal. Decontamination methods include autoclaving, incineration, or chemical disinfection, such as soaking in bleach or formaldehyde gas treatment. **An anthrax-contaminated object that has been treated so that the anthrax spores are destroyed is not subject to HMR requirements.**
- < If complete decontamination of an anthrax-contaminated object prior to transportation is not possible, then the object must be transported in conformance with all HMR requirements applicable to an infectious substance, as set forth below. **An anthrax-contaminated object may not be transported as a regulated medical waste.** Note that transportation of an anthrax-contaminated material by a federal, state, or local government agency or the military in a vehicle (e.g., truck, airplane) operated by a government or military employee is not subject to the HMR.
 - Packaging (§§ 173.196, 178.609). Use a triple packaging that is capable of meeting the performance requirements in § 178.609 (e.g., drop tests, water immersion test) and consists of the following components:
 - Watertight primary receptacle
 - Watertight secondary receptacle
 - If material is liquid, sufficient absorbent material between the primary and secondary receptacles to absorb entire contents
 - Outer packaging of adequate strength for capacity, mass, and intended use
 - Itemized list of package contents must be placed between the secondary receptacle and the outer packaging.
 - Labeling (§ 172.400). Label the package with an INFECTIOUS SUBSTANCE label.
 - Marking (§ 172.301). Mark the package with the words “Infectious substance, affecting humans (bacillus anthracis), 6.2, UN 2814” and with the name and address of the consignor or consignee.
 - Shipping documents (§§ 172.202, 172.203, 172.204, 172.604). Prepare a shipping paper that includes the following information: “Infectious substance, affecting humans (bacillus anthracis), 6.2, UN 2814” and the quantity being shipped. Include the following certification: “This is to certify that the above-named materials are properly classified, described, packaged, marked and labeled, and are

in proper condition for transportation according to the applicable regulations of the Department of Transportation.” Also, include an emergency telephone number that is manned by a person familiar with the material being shipped and with emergency measures to be taken in the event of a leak or other emergency.

- < If the anthrax contaminated object cannot be placed in a packaging that meets the HMR requirements because of its size or form, then you must apply for an exemption from the HMR in order to transport the material. Your exemption application should specify the type of packaging you propose to use to ship the object. The packaging must be adequate to ensure that anthrax cannot sift or otherwise be expelled from it during transportation.
 - We issued two emergency exemptions to permit shipment of solid materials contaminated with or potentially contaminated with anthrax. The exemptions permits the solid material to be placed in a plastic film bag that is treated with a disinfectant after it is sealed and then placed in a second plastic bag that is then treated with disinfectant. The plastic bag must then be placed in a metal or fiberglass bulk outer packaging or caster cart. The material must be described as “Infectious substances, affecting humans (anthrax-contaminated solid material), 6.2, UN 2814” and accompanied with appropriate shipping documentation. The package must be marked with a BIOHAZARD marking. (See DOT-E-12861 and DOT-E-12864.)

Transportation anthrax-contaminated regulated medical waste

- < For purposes of the HMR, a “regulated medical waste” (or RMW) is a waste or reusable material, other than a culture or stock of an infectious substance, that contains an infectious substance and is generated in the diagnosis or treatment of human beings and animals, research pertaining to the diagnosis or treatment of human beings or animals, or the production or testing of biological products. (§ 173.134) Note that transportation of RMW by a federal, state, or local government agency or the military in a vehicle (e.g., truck, airplane) operated by a government or military employee is not subject to the HMR.

- < You must transport regulated medical waste that contains anthrax-infected material or anthrax spores in accordance with HMR requirements applicable to RMW:
 - Packaging (§ 173.197). Use a packaging that is rigid, leak resistant, impervious to moisture, of sufficient strength to prevent tearing or bursting during transportation, sealed to prevent leakage, puncture resistant for sharps, and break resistant and tightly lidded or stoppered for liquids in quantities greater than 20 cubic centimeters. The packaging must conform to HMR requirements for Packing Group II hazardous materials.

 - Labeling (§ 172.400). Label the package with an INFECTIOUS SUBSTANCE label.

 - Marking (§ 172.301). Mark the package with the words “Regulated medical waste, 6.2, UN 3291” and with the name and address of the consignor or consignee.

 - Shipping documents (§§ 172.202, 172.203, 172.204, 172.604). Prepare a shipping paper that includes the following information: “Regulated medical waste, 6.2, UN 3291, PG II” and the quantity being shipped. Include the following certification: “This is to certify that the above-named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.” Also, include an emergency telephone number that is manned by a person familiar with the material being shipped and with emergency measures to be taken in the event of a leak or other emergency.

- < If you transport RMW using a private or contract carrier, the package does not need an INFECTIOUS SUBSTANCE label if it is marked with a “BIOHAZARD” marking. Also, you may package RMW in a rigid, non-bulk packaging that conforms to OSHA packaging requirements in 29 CFR 1910.1030. (§ 173.134(b)(3))

- < If you are transporting bulk quantities of RMW (more than 119 gallons in a single package for liquids or more than 882 pounds maximum net mass and more than 119 gallons

capacity for solids), you must apply for an exemption from the HMR in order to transport the material. Your exemption application should specify the type of packaging you propose to use to ship the RMW. The packaging must be adequate to ensure that the RMW cannot leak or be released during transportation.

Transporting anthrax-contaminated mail

Anthrax-contaminated mail is subject to U.S. postal laws and regulations. Therefore, it is not regulated under the HMR even if transported by a carrier other than the U.S. Postal Service. 49 U.S.C. 5126.

ADDITIONAL INFORMATION

Do other federal requirements apply to shipments of anthrax and anthrax-contaminated material and objects?

- < Yes. The following regulations may also apply. You should contact the agencies listed if you have questions.
 - Centers for Disease Control and Prevention (CDC; <http://www.cdc.gov>), 42 CFR Part 72 Interstate Shipment of Etiologic Agents
 - Occupational Safety and Health Administration (OSHA; <http://www.osha.gov>), 29 CFR 1910.1030 Bloodborne Pathogens
 - US Postal Service (USPS; <http://www.usps.gov>), Hazardous, Restricted, and Perishable Mail

How do I apply for an exemption from HMR requirements?

- < Exemption application procedures are in 49 CFR Part 107. You can also call 202-366-4511 or access the hazardous materials transportation website at <http://hazmat.dot.gov> for information on how to apply.

Where can I purchase appropriate packaging and labels?

- < You can purchase appropriate packaging from a number of vendors, including SAFTPAK (1-800-814-7484; www.saftpak.com) and ICC (1-888-442-9628; www.compliancecenter.com).
- < You can purchase labels from a number of vendors, including ICC (1-888-442-9628), Labelmaster (1-800-621-5808), and JJ Keller (1-800-558-5011).

NOTE: THIS IS NOT A DOT ENDORSEMENT OF THESE SUPPLIERS.