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<i>Association of American Railroads,</i>	
American Railroads Building, 50 F Street, NW., Washington, DC 20001	
AAR Catalog Nos. SE60CHT; SE60CC; SE60CHTE; SE60CE; SE60DC; SE60DE .....	179.14
AAR Catalog Nos. SE67CC; SE67CE; SE67BHT; SE67BC; SE67BHTE; SE67BE .....	179.14
AAR Catalog Nos. SE68BHT; SE68BC; SE68BHTE; SE68BE .....	179.14
AAR Catalog Nos. SE69AHT; SE69AE .....	179.14
AAR Catalog Nos. SF70CHT; SF70CC; SF70CHTE; SF70CE .....	179.14
AAR Catalog Nos. SF73AC; SF73AE; SF73AHT; SF73AHTE .....	179.14
AAR Catalog Nos. SF79CHT; SF79CC; SF79CHTE; SF79CE .....	179.14
<i>Bureau of Explosives,</i>	
Hazardous Materials Systems (BOE), Association of American Railroads, American Railroads Building, 50 F Street, NW., Washington, DC 20001	
Fetterley's Formula (The Determination of the Relief Dimensions for Safety Valves on Containers in which Liquefied gas is charged and when the exterior surface of the container is exposed to a temperature of 1,200 °F.).	173.315
Pamphlet 6, Illustrating Methods for Loading and Bracing Carload and Less-Than-Carload Shipments of Explosives and Other Dangerous Articles, 1962.	174.55; 174.101; 174.112; 174.115; 174.290
Pamphlet 6A (includes appendix No. 1, October 1944 and appendix 2, December 1945), Illustrating Methods for Loading and Bracing Carload and Less-Than-Carload Shipments of Loaded Projectiles, Loaded Bombs, etc., 1943.	174.101; 174.290
Pamphlet 6C, Illustrating Methods for Loading and Bracing Trailers and Less-Than-Trailer Shipments of Explosives and Other Dangerous Articles Via Trailer-on-Flatcar (TOFC) or Container-on-Flatcar (COFC), 1985.	174.55; 174.63; 174.101; 174.112; 174.115
Emergency Handling of Hazardous Materials in Surface Transportation, 1989 .....	171.7
<i>Centers for Disease Control and Prevention</i>	
1600 Clifton Road, Atlanta, GA 30333	
Biosafety in Microbiological and Biomedical Laboratories, Fourth Edition, April 1999 .....	173.134
<i>National Association of Corrosion Engineers,</i>	
1440 South Creek, Houston, Texas 77084	
NACE Standard TM-01-69, Test Method Laboratory Corrosion Testing of Metals for the Process Industries, 1969.	173.136
<i>National Institutes of Health</i>	
Bethesda, MD 20892	
NIH Guidelines for Research Involving Recombinant DNA Molecules (NIH Guidelines), January 2001, Appendix B.	173.134
<i>Society of Plastics Industries, Inc.,</i>	
Organic Peroxide Producers Safety Division, 1275 K Street, NW., Suite 400, Washington, DC 20005	
Self Accelerating Decomposition Temperature Test, 1972 .....	173.21

[Amdt. 171-111, 55 FR 52466, Dec. 21, 1990]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting § 171.7, see the List of CFR Sections Affected which appears in the Finding Aids section of the printed volume and on GPO Access.

EDITORIAL NOTE: At 68 FR 19273, Apr. 18, 2003, § 171.7(a)(3) was amended by removing the entry for "TTMA TB No. 81" under "Truck Trailer Manufacturers Association". The amendment could not be incorporated because that entry does not exist.

**§ 171.8 Definitions and abbreviations.**

In this subchapter,

*Aerosol* means any non-refillable receptacle containing a gas compressed, liquefied or dissolved under pressure, the sole purpose of which is to expel a nonpoisonous (other than a Division 6.1 Packing Group III material) liquid, paste, or powder and fitted with a self-closing release device allowing the contents to be ejected by the gas.

*Agricultural product* means a hazardous material, other than a hazardous waste, whose end use directly supports the production of an agricultural commodity including, but not limited to a fertilizer, pesticide, soil amendment or fuel. An *agricultural product* is limited to a material in Class 3, 8 or 9, Division 2.1, 2.2, 5.1, or 6.1, or an ORM-D material.

*Approval* means a written authorization, including a competent authority approval, from the Associate Administrator or other designated Department official, to perform a function for which prior authorization by the Associate Administrator is required under subchapter C of this chapter (49 CFR parts 171 through 180.)

*Approved* means approval issued or recognized by the Department unless otherwise specifically indicated in this subchapter.

*Asphyxiant gas* means a gas which dilutes or replaces oxygen normally in the atmosphere.

*Associate Administrator* means the Associate Administrator for Hazardous Materials Safety, Research and Special Programs Administration.

*Atmospheric gases* means air, nitrogen, oxygen, argon, krypton, neon and xenon.

*Authorized Inspection Agency* means: (1) A jurisdiction which has adopted and administers one or more sections of the ASME Boiler and Pressure Vessel Code as a legal requirement and has a representative serving as a member of the ASME Conference Committee; or (2) an insurance company which has been licensed or registered by the appropriate authority of a State of the United States or a Province of Canada to underwrite boiler and pressure vessel insurance in such State or Province.

*Authorized Inspector* means an Inspector who is currently commissioned by the National Board of Boiler and Pressure Vessel Inspectors and employed as an Inspector by an Authorized Inspection Agency.

*Bag* means a flexible packaging made of paper, plastic film, textiles, woven material or other similar materials.

*Bar* means 1 BAR = 100 kPa (14.5 psi).

*Barge* means a non-selfpropelled vessel.

*Biological product.* See § 173.134 of this subchapter.

*Bottle* means an inner packaging having a neck of relatively smaller cross section than the body and an opening capable of holding a closure for retention of the contents.

*Bottom shell* means that portion of a tank car tank surface, excluding the head ends of the tank car tank, that lies within two feet, measured circumferentially, of the bottom longitudinal center line of the tank car tank.

*Box* means a packaging with complete rectangular or polygonal faces, made of metal, wood, plywood, reconstituted wood, fiberboard, plastic, or other suitable material. Holes appropriate to the size and use of the packaging, for purposes such as ease of handling or opening, or to meet classification requirements, are permitted as long as they do not compromise the in-

tegrity of the packaging during transportation, and are not otherwise prohibited in this subchapter.

*Break-bulk* means packages of hazardous materials that are handled individually, palletized, or unitized for purposes of transportation as opposed to bulk and containerized freight.

*Btu* means British thermal unit.

*Bulk packaging* means a packaging, other than a vessel or a barge, including a transport vehicle or freight container, in which hazardous materials are loaded with no intermediate form of containment and which has:

(1) A maximum capacity greater than 450 L (119 gallons) as a receptacle for a liquid;

(2) A maximum net mass greater than 400 kg (882 pounds) and a maximum capacity greater than 450 L (119 gallons) as a receptacle for a solid; or

(3) A water capacity greater than 454 kg (1000 pounds) as a receptacle for a gas as defined in § 173.115 of this subchapter.

*Bureau of Explosives* means the Bureau of Explosives (B of E) of the Association of American Railroads.

*C* means Celsius or Centigrade.

*Captain of the Port (COTP)* means the officer of the Coast Guard, under the command of a District Commander, so designated by the Commandant for the purpose of giving immediate direction to Coast Guard law enforcement activities within an assigned area. As used in this subchapter, the term *Captain of the Port* includes an authorized representative of the Captain of the Port.

*Carfloat* means a vessel that operates on a short run on an irregular basis and serves one or more points in a port area as an extension of a rail line or highway over water, and does not operate in ocean, coastwise, or ferry service.

*Cargo aircraft only* means an aircraft that is used to transport cargo and is not engaged in carrying passengers. For purposes of this subchapter, the terms *cargo aircraft only*, *cargo-only aircraft* and *cargo aircraft* have the same meaning.

*Cargo tank* means a bulk packaging that:

(1) Is a tank intended primarily for the carriage of liquids or gases and includes appurtenances, reinforcements,

fittings, and closures (for the definition of a tank, see 49 CFR 178.320, 178.337–1, or 178.338–1, as applicable);

(2) Is permanently attached to or forms a part of a motor vehicle, or is not permanently attached to a motor vehicle but which, by reason of its size, construction or attachment to a motor vehicle is loaded or unloaded without being removed from the motor vehicle; and

(3) Is not fabricated under a specification for cylinders, intermediate bulk containers, multi-unit tank car tanks, portable tanks, or tank cars.

*Cargo tank motor vehicle* means a motor vehicle with one or more cargo tanks permanently attached to or forming an integral part of the motor vehicle.

*Cargo vessel* means: (1) Any vessel other than a passenger vessel; and

(2) Any ferry being operated under authority of a change of character certificate issued by a Coast Guard Officer-in-Charge, Marine Inspection.

*Carrier* means a person engaged in the transportation of passengers or property by:

(1) Land or water, as a common, contract, or private carrier, or

(2) Civil aircraft.

*CC* means closed-cup.

*Character of vessel* means the type of service in which the vessel is engaged at the time of carriage of a hazardous material.

*Class* means hazard class. See *hazard class*.

*Class 1*. See § 173.50 of this subchapter.

*Class 2*. See § 173.115 of this subchapter.

*Class 3*. See § 173.120 of this subchapter.

*Class 4*. See § 173.124 of this subchapter.

*Class 5*. See § 173.128 of this subchapter.

*Class 6*. See § 173.132 of this subchapter.

*Class 7*. See § 173.403 of this subchapter.

*Class 8*. See § 173.136 of this subchapter.

*Class 9*. See § 173.140 of this subchapter.

*Closure* means a device which closes an opening in a receptacle.

*COFC* means container-on-flat-car.

*Combination packaging* means a combination of packaging, for transport purposes, consisting of one or more inner packagings secured in a non-bulk outer packaging. It does not include a composite packaging.

*Combustible liquid*. See § 173.120 of this subchapter.

*Compatibility group letter* means a designated alphabetical letter used to categorize different types of explosive substances and articles for purposes of stowage and segregation. See § 173.52 of this subchapter.

*Competent Authority* means a national agency responsible under its national law for the control or regulation of a particular aspect of the transportation of hazardous materials (dangerous goods). The term *Appropriate Authority*, as used in the ICAO Technical Instructions (see § 171.7), has the same meaning as *Competent Authority*. For purposes of this subchapter, the Associate Administrator is the Competent Authority for the United States.

*Composite packaging* means a packaging consisting of an outer packaging and an inner receptacle, so constructed that the inner receptacle and the outer packaging form an integral packaging. Once assembled it remains thereafter an integrated single unit; it is filled, stored, shipped and emptied as such.

*Compressed gas*. See § 173.115 of this subchapter.

*Consumer commodity* means a material that is packaged and distributed in a form intended or suitable for sale through retail sales agencies or instrumentalities for consumption by individuals for purposes of personal care or household use. This term also includes drugs and medicines.

*Containership* means a cargo vessel designed and constructed to transport, within specifically designed cells, portable tanks and freight containers which are lifted on and off with their contents intact.

*Corrosive material*. See § 173.136 of this subchapter.

*Crate* means an outer packaging with incomplete surfaces.

*Crewmember* means a person assigned to perform duty in an aircraft during flight time.

*Cryogenic liquid*. See § 173.115(g) of this subchapter.

*Cultures and stocks.* See §173.134 of this subchapter.

*Cylinder* means a pressure vessel designed for pressures higher than 40 psia and having a circular cross section. It does not include a portable tank, multi-unit tank car tank, cargo tank, or tank car.

*Dangerous when wet material.* See §173.124 of this subchapter.

*Design Certifying Engineer* means a person registered with the Department in accordance with subpart F of part 107 of this chapter who has the knowledge and ability to perform stress analysis of pressure vessels and otherwise determine whether a cargo tank design and construction meets the applicable DOT specification. A *Design Certifying Engineer* meets the knowledge and ability requirements of this section by meeting any one of the following requirements:

(1) Has an engineering degree and one year of work experience in cargo tank structural or mechanical design;

(2) Is currently registered as a professional engineer by appropriate authority of a state of the United States or a province of Canada; or

(3) Has at least three years' experience in performing the duties of a Design Certifying Engineer prior to September 1, 1991.

*Designated facility* means a hazardous waste treatment, storage, or disposal facility that has been designated on the manifest by the generator.

*Diagnostic specimen.* See §173.134 of this subchapter.

*District Commander* means the District Commander of the Coast Guard, or his authorized representative, who has jurisdiction in the particular geographical area.

*Division* means a subdivision of a hazard class.

*DOD* means the U.S. Department of Defense.

*Domestic transportation* means transportation between places within the United States other than through a foreign country.

*DOT* or *Department* means U.S. Department of Transportation.

*Drum* means a flat-ended or convex-ended cylindrical packaging made of metal, fiberboard, plastic, plywood, or other suitable materials. This defini-

tion also includes packagings of other shapes made of metal or plastic (e.g., round taper-necked packagings or pail-shaped packagings) but does not include cylinders, jerricans, wooden barrels or bulk packagings.

*Elevated temperature material* means a material which, when offered for transportation or transported in a bulk packaging:

(1) Is in a liquid phase and at a temperature at or above 100 °C (212 °F);

(2) Is in a liquid phase with a flash point at or above 37.8 °C (100 °F) that is intentionally heated and offered for transportation or transported at or above its flash point; or

(3) Is in a solid phase and at a temperature at or above 240 °C (464 °F).

*Engine* means a locomotive propelled by any form of energy and used by a railroad.

*EPA* means U.S. Environmental Protection Agency.

*Etiologic agent.* See §173.134 of this subchapter.

*EX number* means a number preceded by the prefix "EX", assigned by the Associate Administrator, to an item that has been evaluated under the provisions of §173.56 of this subchapter.

*Exemption* means a document issued by the Associate Administrator under the authority of 49 U.S.C. 5117. The document permits a person to perform a function that is not otherwise permitted under subchapter A or C of this chapter, or other regulations issued under 49 U.S.C. 5101 through 5127 (e.g., Federal Motor Carrier Safety routing).

*Explosive.* See §173.50 of this subchapter.

*F* means degree Fahrenheit.

*Farmer* means a person engaged in the production or raising of crops, poultry, or livestock.

*Federal hazardous material transportation law* means 49 U.S.C. 5101 *et seq.*

*Ferry vessel* means a vessel which is limited in its use to the carriage of deck passengers or vehicles or both, operates on a short run on a frequent schedule between two points over the most direct water route, other than in ocean or coastwise service, and is offered as a public service of a type normally attributed to a bridge or tunnel.

*Filling density* has the following meanings:

(1) For compressed gases in cylinders, see § 173.304a(a)(2) table note 1.

(2) For compressed gases in tank cars, see § 173.314(c) table note 1.

(3) For compressed gases in cargo tanks and portable tanks, see § 173.315(a) table note 1.

(4) For cryogenic liquids in cylinders, except hydrogen, see § 173.316(c)(1).

(5) For hydrogen, cryogenic liquid in cylinders, see § 173.316(c)(3) table note 1.

(6) For cryogenic liquids in cargo tanks, see § 173.318(f)(1).

(7) For cryogenic liquids in tank cars, see § 173.319(d)(1).

*Flammable gas.* See § 173.115 of this subchapter.

*Flammable liquid.* See § 173.120 of this subchapter.

*Flammable solid.* See § 173.124 of this subchapter.

*Flash point.* See § 173.120 of this subchapter.

*Freight container* means a reusable container having a volume of 64 cubic feet or more, designed and constructed to permit being lifted with its contents intact and intended primarily for containment of packages (in unit form) during transportation.

*Fuel tank* means a tank other than a cargo tank, used to transport flammable or combustible liquid, or compressed gas for the purpose of supplying fuel for propulsion of the transport vehicle to which it is attached, or for the operation of other equipment on the transport vehicle.

*Fumigated lading.* See §§ 172.302(g) and 173.9.

*Gas* means a material which has a vapor pressure greater than 300 kPa (43.5 psia) at 50 °C (122 °F) or is completely gaseous at 20 °C (68 °F) at a standard pressure of 101.3 kPa (14.7 psia).

*Gross weight* or *Gross mass* means the weight of a packaging plus the weight of its contents.

*Hazard class* means the category of hazard assigned to a hazardous material under the definitional criteria of part 173 of this subchapter and the provisions of the § 172.101 table. A material may meet the defining criteria for more than one hazard class but is assigned to only one hazard class.

*Hazard zone* means one of four levels of hazard (Hazard Zones A through D)

assigned to gases, as specified in § 173.116(a) of this subchapter, and one of two levels of hazards (Hazard Zones A and B) assigned to liquids that are poisonous by inhalation, as specified in § 173.133(a) of this subchapter. A hazard zone is based on the LC50 value for acute inhalation toxicity of gases and vapors, as specified in § 173.133(a).

*Hazardous material* means 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 designated as hazardous under section 5103 of Federal hazardous materials transportation law (49 U.S.C. 5103). The term includes hazardous substances, hazardous wastes, marine pollutants, elevated temperature materials, materials designated as hazardous in the Hazardous Materials Table (see 49 CFR 172.101), and materials that meet the defining criteria for hazard classes and divisions in part 173 of subchapter C of this chapter.

*Hazardous substance* for the purposes of this subchapter, means a material, including its mixtures and solutions, that—

(1) Is listed in the appendix A to § 172.101 of this subchapter;

(2) Is in a quantity, in one package, which equals or exceeds the reportable quantity (RQ) listed in the appendix A to § 172.101 of this subchapter; and

(3) When in a mixture or solution—

(i) For radionuclides, conforms to paragraph 7 of the appendix A to § 172.101.

(ii) For other than radionuclides, is in a concentration by weight which equals or exceeds the concentration corresponding to the RQ of the material, as shown in the following table:

RQ pounds (kilograms)	Concentration by weight	
	Percent	PPM
5000 (2270) .....	10	100,000
1000 (454) .....	2	20,000
100 (45.4) .....	0.2	2,000
10 (4.54) .....	0.02	200
1 (0.454) .....	0.002	20

The term does not include petroleum, including crude oil or any fraction

thereof which is not otherwise specifically listed or designated as a hazardous substance in appendix A to § 172.101 of this subchapter, and the term does not include natural gas, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas).

*Hazardous waste*, for the purposes of this chapter, means any material that is subject to the Hazardous Waste Manifest Requirements of the U.S. Environmental Protection Agency specified in 40 CFR part 262.

*Hazmat employee* means a person who is employed by a hazmat employer and who in the course of employment directly affects hazardous materials transportation safety. This term includes an owner-operator of a motor vehicle which transports hazardous materials in commerce. This term includes an individual, including a self-employed individual, employed by a hazmat employer who, during the course of employment:

- (1) Loads, unloads, or handles hazardous materials;
- (2) Manufactures, tests, reconditions, repairs, modifies, marks, or otherwise represents containers, drums, or packagings as qualified for use in the transportation of hazardous materials;
- (3) Prepares hazardous materials for transportation;
- (4) Is responsible for safety of transporting hazardous materials; or
- (5) Operates a vehicle used to transport hazardous materials.

*Hazmat employer* means a person who uses one or more of its employees in connection with: transporting hazardous materials in commerce; causing hazardous materials to be transported or shipped in commerce; or representing, marking, certifying, selling, offering, manufacturing, reconditioning, testing, repairing, or modifying containers, drums, or packagings as qualified for use in the transportation of hazardous materials. This term includes an owner-operator of a motor vehicle which transports hazardous materials in commerce. This term also includes any department, agency, or instrumentality of the United States, a State, a political subdivision of a State, or an Indian tribe

engaged in an activity described in the first sentence of this definition.

*Hermetically sealed* means closed by fusion, gasketing, crimping, or equivalent means so that no gas or vapor can enter or escape.

*IAEA* means International Atomic Energy Agency.

*IATA* means International Air Transport Association.

*ICAO* means International Civil Aviation Organization.

*IMO* means International Maritime Organization.

*Infectious substance (etiologic agent)*. See § 173.134 of this subchapter.

*Inner packaging* means a packaging for which an outer packaging is required for transport. It does not include the inner receptacle of a composite packaging.

*Inner receptacle* means a receptacle which requires an outer packaging in order to perform its containment function. The inner receptacle may be an inner packaging of a combination packaging or the inner receptacle of a composite packaging.

*Intermediate bulk container* or *IBC* means a rigid or flexible portable packaging, other than a cylinder or portable tank, which is designed for mechanical handling. Standards for IB Cs manufactured in the United States are set forth in subparts N and O of part 178 of this subchapter.

*Intermediate packaging* means a packaging which encloses an inner packaging or article and is itself enclosed in an outer packaging.

*Intermodal container* means a freight container designed and constructed to permit it to be used interchangeably in two or more modes of transport.

*Intermodal portable tank* or *IM portable tank* means a specific class of portable tanks designed primarily for international intermodal use.

*International transportation* means transportation—

- (1) Between any place in the United States and any place in a foreign country;
- (2) Between places in the United States through a foreign country; or
- (3) Between places in one or more foreign countries through the United States.

*Irritating material.* See § 173.132(a)(2) of this subchapter.

*Jerrican* means a metal or plastic packaging of rectangular or polygonal cross-section.

*Large packaging* means a packaging that—

(1) Consists of an outer packaging which contains articles or inner packagings;

(2) Is designated for mechanical handling;

(3) Exceeds 400 kg net mass or 450 liters (118.9 gallons) capacity;

(4) Has a volume of not more than 3 m<sup>3</sup> (see § 178.801(i) of this subchapter); and

(5) Conforms to the requirements for the construction, testing and marking of large packagings as specified in the UN Recommendations, Chapter 6.6 (incorporated by reference; see § 171.7).

*Limited quantity*, when specified as such in a section applicable to a particular material, means the maximum amount of a hazardous material for which there is a specific labeling or packaging exception.

*Liquid* means a material, other than an elevated temperature material, with a melting point or initial melting point of 20 °C (68 °F) or lower at a standard pressure of 101.3 kPa (14.7 psia). A viscous material for which a specific melting point cannot be determined must be subjected to the procedures specified in ASTM D 4359 “Standard Test Method for Determining Whether a Material is Liquid or Solid” (see § 171.7).

*Liquid phase* means a material that meets the definition of *liquid* when evaluated at the higher of the temperature at which it is offered for transportation or at which it is transported, not at the 37.8 °C (100 °F) temperature specified in ASTM D 4359–84.

*Magazine vessel* means a vessel used for the receiving, storing, or dispensing of explosives.

*Magnetic material.* See § 173.21(d) of this subchapter.

*Marine pollutant*, means a material which is listed in appendix B to § 172.101 of this subchapter (also see § 171.4) and, when in a solution or mixture of one or more marine pollutants, is packaged in a concentration which equals or exceeds:

(1) Ten percent by weight of the solution or mixture for materials listed in the appendix; or

(2) One percent by weight of the solution or mixture for materials that are identified as severe marine pollutants in the appendix.

*Marking* means a descriptive name, identification number, instructions, cautions, weight, specification, or UN marks, or combinations thereof, required by this subchapter on outer packagings of hazardous materials.

*Material of trade* means a hazardous material, other than a hazardous waste, that is carried on a motor vehicle—

(1) For the purpose of protecting the health and safety of the motor vehicle operator or passengers;

(2) For the purpose of supporting the operation or maintenance of a motor vehicle (including its auxiliary equipment); or

(3) By a private motor carrier (including vehicles operated by a rail carrier) in direct support of a principal business that is other than transportation by motor vehicle.

*Material poisonous by inhalation* means:

(1) A gas meeting the defining criteria in § 173.115(c) of this subchapter and assigned to Hazard Zone A, B, C, or D in accordance with § 173.116(a) of this subchapter;

(2) A liquid (other than as a mist) meeting the defining criteria in § 173.132(a)(1)(iii) of this subchapter and assigned to Hazard Zone A or B in accordance with § 173.133(a) of this subchapter; or

(3) Any material identified as an inhalation hazard by a special provision in column 7 of the § 172.101 table.

*Maximum allowable working pressure* or *MAWP*: For DOT specification cargo tanks used to transport liquid hazardous materials, see § 178.320(c) of this subchapter.

*Maximum capacity* means the maximum inner volume of receptacles or packagings.

*Maximum net mass* means the allowable maximum net mass of contents in a single packaging, or as used in subpart M of part 178 of this subchapter, the maximum combined mass of inner packaging, and the contents thereof.

*Metered delivery service* means a cargo tank unloading operation conducted at a metered flow rate of 378.5 L (100 gallons) per minute or less through an attached delivery hose with a nominal inside diameter of 3.175 cm (1¼ inches) or less.

*Miscellaneous hazardous material.* See § 173.140 of this subchapter.

*Mixture* means a material composed of more than one chemical compound or element.

*Mode* means any of the following transportation methods; rail, highway, air, or water.

*Motor vehicle* includes a vehicle, machine, tractor, trailer, or semitrailer, or any combination thereof, propelled or drawn by mechanical power and used upon the highways in the transportation of passengers or property. It does not include a vehicle, locomotive, or car operated exclusively on a rail or rails, or a trolley bus operated by electric power derived from a fixed overhead wire, furnishing local passenger transportation similar to street-railway service.

*Name of contents* means the proper shipping name as specified in § 172.101 of this subchapter.

*Navigable waters* means, for the purposes of this subchapter, waters of the United States, including the territorial seas.

*Non-bulk packaging* means a packaging which has:

(1) A maximum capacity of 450 L (119 gallons) or less as a receptacle for a liquid;

(2) A maximum net mass of 400 kg (882 pounds) or less and a maximum capacity of 450 L (119 gallons) or less as a receptacle for a solid; or

(3) A water capacity of 454 kg (1000 pounds) or less as a receptacle for a gas as defined in § 173.115 of this subchapter.

*Nonflammable gas.* See § 173.115 of this subchapter.

*N.O.S.* means not otherwise specified.

*N.O.S. description* means a shipping description from the § 172.101 table which includes the abbreviation *n.o.s.*

*NPT* means an American Standard taper pipe thread conforming to requirements of Federal Standard H28, part II, section VII. See § 171.7.

*NRC (non-reusable container)* means a packaging (container) whose reuse is restricted in accordance with the provisions of § 173.28 of this subchapter.

*Occupied caboose* means a rail car being used to transport non-passenger personnel.

*Officer in Charge, Marine Inspection* means a person from the civilian or military branch of the Coast Guard designated as such by the Commandant and who under the supervision and direction of the Coast Guard District Commander is in charge of a designated inspection zone for the performance of duties with respect to the enforcement and administration of title 52, Revised Statutes, acts amendatory thereof or supplemental thereto, rules and regulations thereunder, and the inspection required thereby.

*Offshore supply vessel* means a cargo vessel of less than 500 gross tons that regularly transports goods, supplies or equipment in support of exploration or production of offshore mineral or energy resources.

*Operator* means a person who controls the use of an aircraft, vessel, or vehicle.

*Organic peroxide.* See § 173.128 of this subchapter.

*ORM* means other regulated material. See § 173.144 of this subchapter.

*Outage* or *ullage* means the amount by which a packaging falls short of being liquid full, usually expressed in percent by volume.

*Outer packaging* means the outermost enclosure of a composite or combination packaging together with any absorbent materials, cushioning and any other components necessary to contain and protect inner receptacles or inner packagings.

*Overpack*, except as provided in subpart K of part 178 of this subchapter, means an enclosure that is used by a single consignor to provide protection or convenience in handling of a package or to consolidate two or more packages. *Overpack* does not include a transport vehicle, freight container, or aircraft unit load device. Examples of overpacks are one or more packages:

(1) Placed or stacked onto a load board such as a pallet and secured by strapping, shrink wrapping, stretch wrapping, or other suitable means; or

(2) Placed in a protective outer packaging such as a box or crate.

*Oxidizer.* See §173.127 of this subchapter.

*Oxidizing gas* means a gas which may, generally by providing oxygen, cause or contribute to the combustion of other material more than air does.

*Oxygen generator (chemical)* means a device containing chemicals that upon activation release oxygen as a product of chemical reaction.

*Package* or *Outside Package* means a packaging plus its contents. For radioactive materials, see §173.403 of this subchapter.

*Packaging* means a receptacle and any other components or materials necessary for the receptacle to perform its containment function in conformance with the minimum packing requirements of this subchapter. For radioactive materials packaging, see §173.403 of this subchapter.

*Packing group* means a grouping according to the degree of danger presented by hazardous materials. Packing Group I indicates great danger; Packing Group II, medium danger; Packing Group III, minor danger. See §172.101(f) of this subchapter.

*Passenger* (With respect to vessels and for the purposes of part 176 only) means a person being carried on a vessel other than:

- (1) The owner or his representative;
- (2) The operator;
- (3) A bona fide member of the crew engaged in the business of the vessel who has contributed no consideration for his carriage and who is paid for his services; or
- (4) A guest who has not contributed any consideration directly or indirectly for his carriage.

*Passenger-carrying aircraft* means an aircraft that carries any person other than a crewmember, company employee, an authorized representative of the United States, or a person accompanying the shipment.

*Passenger vessel* means—

- (1) A vessel subject to any of the requirements of the International Convention for the Safety of Life at Sea, 1974, which carries more than 12 passengers;
- (2) A cargo vessel documented under the laws of the United States and not

subject to that Convention, which carries more than 16 passengers;

(3) A cargo vessel of any foreign nation that extends reciprocal privileges and is not subject to that Convention and which carries more than 16 passengers; and

(4) A vessel engaged in a ferry operation and which carries passengers.

*Person* means an individual, firm, copartnership, corporation, company, association, or joint-stock association (including any trustee, receiver, assignee, or similar representative); or a government or Indian tribe (or an agency or instrumentality of any government or Indian tribe) that transports a hazardous material to further a commercial enterprise or offers a hazardous material for transportation in commerce. Person does not include the following:

- (1) The United States Postal Service.
- (2) Any agency or instrumentality of the Federal government, for the purposes of 49 U.S.C. 5123 (civil penalties) and 5124 (criminal penalties).
- (3) Any government or Indian tribe (or an agency or instrumentality of any government or Indian tribe) that transports hazardous material for a governmental purpose.

*Placarded car* means a rail car which is placarded in accordance with the requirements of part 172 of this subchapter.

*Poisonous gas.* See §173.115 of this subchapter.

*Poisonous materials.* See §173.132 of this subchapter.

*Portable tank* means a bulk packaging (except a cylinder having a water capacity of 1000 pounds or less) designed primarily to be loaded onto, or on, or temporarily attached to a transport vehicle or ship and equipped with skids, mountings, or accessories to facilitate handling of the tank by mechanical means. It does not include a cargo tank, tank car, multi-unit tank car tank, or trailer carrying 3AX, 3AAX, or 3T cylinders.

*Preferred route* or *Preferred highway* is a highway for shipment of *highway route controlled quantities* of radioactive materials so designated by a State routing agency, and any Interstate

System highway for which an alternative highway has not been designated by such State agency as provided by §397.103 of this title.

*Primary hazard* means the hazard class of a material as assigned in the §172.101 table.

*Private track* or *Private siding* means track located outside of a carrier's right-of-way, yard, or terminals where the carrier does not own the rails, ties, roadbed, or right-of-way and includes track or portion of track which is devoted to the purpose of its user either by lease or written agreement, in which case the lease or written agreement is considered equivalent to ownership.

*Proper shipping name* means the name of the hazardous material shown in Roman print (not italics) in §172.101 of this subchapter.

*Psi* means pounds per square inch.

*Psia* means pounds per square inch absolute.

*Psig* means pounds per square inch gauge.

*Public vessel* means a vessel owned by and being used in the public service of the United States. It does not include a vessel owned by the United States and engaged in a trade or commercial service or a vessel under contract or charter to the United States.

*Pyrophoric liquid*. See §173.124(b) of this subchapter.

*Radioactive materials*. See §173.403 of this subchapter for definitions relating to radioactive materials.

*Rail car* means a car designed to carry freight or non-passenger personnel by rail, and includes a box car, flat car, gondola car, hopper car, tank car, and occupied caboose.

*Railroad* means a person engaged in transportation by rail.

*Receptacle* means a containment vessel for receiving and holding materials, including any means of closing.

*Registered Inspector* means a person registered with the Department in accordance with subpart F of part 107 of this chapter who has the knowledge and ability to determine whether a cargo tank conforms to the applicable DOT specification. A *Registered Inspector* meets the knowledge and ability requirements of this section by meeting any one of the following requirements:

(1) Has an engineering degree and one year of work experience relating to the testing and inspection of cargo tanks;

(2) Has an associate degree in engineering and two years of work experience relating to the testing and inspection of cargo tanks;

(3) Has a high school diploma (or General Equivalency Diploma) and three years of work experience relating to the testing and inspection of cargo tanks; or

(4) Has at least three years' experience performing the duties of a Registered Inspector prior to September 1, 1991.

*Regulated medical waste*. See §173.134 of this subchapter.

*Reportable quantity (RQ)* for the purposes of this subchapter means the quantity specified in column 2 of the appendix to §172.101 for any material identified in column 1 of the appendix.

*Research* means investigation or experimentation aimed at the discovery of new theories or laws and the discovery and interpretation of facts or revision of accepted theories or laws in the light of new facts.

*Residue* means the hazardous material remaining in a packaging, including a tank car, after its contents have been unloaded to the maximum extent practicable and before the packaging is either refilled or cleaned of hazardous material and purged to remove any hazardous vapors.

*Risk group*. See §173.134 of this subchapter.

*RSPA* means the Research and Special Programs Administration, U.S. Department of Transportation, Washington, DC 20590.

*SADT* means self-accelerated decomposition temperature. See §173.21(f) of this subchapter.

*Salvage packaging* means a special packaging conforming to §173.3 of this subchapter into which damaged, defective or leaking hazardous materials packages, or hazardous materials that have spilled or leaked, are placed for purposes of transport for recovery or disposal.

*SCF* (standard cubic foot) means one cubic foot of gas measured at 60 °F. and 14.7 psia.

*Self-defense spray* means an aerosol or non-pressurized device that:

(1) Is intended to have an irritating or incapacitating effect on a person or animal; and

(2) Meets no hazard criteria other than for Class 9 (for example, a pepper spray; see §173.140(a) of this subchapter) and, for an aerosol, Division 2.1 or 2.2 (see §173.115 of this subchapter), except that it may contain not more than two percent by mass of a tear gas substance (e.g., chloroacetophenone (CN) or o-chlorobenzylmalonitrile (CS); see §173.132(a)(2) of this subchapter.)

*Sharps.* See §173.134 of this subchapter.

*Sheathing* means a covering consisting of a smooth layer of wood placed over metal and secured to prevent any movement.

*Shipping paper* means a shipping order, bill of lading, manifest or other shipping document serving a similar purpose and containing the information required by §§172.202, 172.203 and 172.204.

*Siftproof packaging* means a packaging impermeable to dry contents, including fine solid material produced during transportation.

*Single packaging* means a non-bulk packaging other than a combination packaging.

*Solid* means a material which is not a gas or a liquid.

*Solution* means any homogeneous liquid mixture of two or more chemical compounds or elements that will not undergo any segregation under conditions normal to transportation.

*Specification packaging* means a packaging conforming to one of the specifications or standards for packagings in part 178 or part 179 of this subchapter.

*Spontaneously combustible material.* See §173.124(b) of this subchapter.

*Stabilized* means that the hazardous material is in a condition that precludes uncontrolled reaction. This may be achieved by methods such as adding an inhibiting chemical, degassing the hazardous material to remove dissolved oxygen and inerting the air space in the package, or maintaining the hazardous material under temperature control.

*State* means a State of the United States, the District of Columbia, the

Commonwealth of Puerto Rico, the Commonwealth of the Northern Mariana Islands, the Virgin Islands, American Samoa, Guam, or any other territory or possession of the United States designated by the Secretary.

*State-designated route* means a preferred route selected in accordance with U.S. DOT "Guidelines for Selecting Preferred Highway Routes for Highway Route Controlled Quantities of Radioactive Materials" or an equivalent routing analysis which adequately considers overall risk to the public.

*Stowage* means the act of placing hazardous materials on board a vessel.

*Strong outside container* means the outermost enclosure which provides protection against the unintentional release of its contents under conditions normally incident to transportation.

*Subsidiary hazard* means a hazard of a material other than the primary hazard. (See *primary hazard*).

*Table in §172.101 or §172.101 table* means the Hazardous Materials Table in §172.101 of this subchapter.

*Technical name* means a recognized chemical name or microbiological name currently used in scientific and technical handbooks, journals, and texts. Generic descriptions are authorized for use as technical names provided they readily identify the general chemical group, or microbiological group. Examples of acceptable generic chemical descriptions are organic phosphate compounds, petroleum aliphatic hydrocarbons and tertiary amines. For proficiency testing only, generic microbiological descriptions such as bacteria, mycobacteria, fungus, and viral samples may be used. Except for names which appear in subpart B of part 172 of this subchapter, trade names may not be used as technical names.

*TOFC* means trailer-on-flat-car.

*Top shell* means the tank car tank surface, excluding the head ends and bottom shell of the tank car tank.

*Toxin.* See §173.134 of this subchapter.

*Trailership* means a vessel, other than a carfloat, specifically equipped to carry motor transport vehicles and fitted with installed securing devices to tie down each vehicle. The term

*trailership* includes *Roll-on/Roll-off (RO/RO)* vessels.

*Train* means one or more engines coupled with one or more rail cars, except during switching operations or where the operation is that of classifying and assembling rail cars within a railroad yard for the purpose of making or breaking up trains.

*Trainship* means a vessel other than a rail car ferry or carfloat, specifically equipped to transport railroad vehicles, and fitted with installed securing devices to tie down each vehicle.

*Transport vehicle* means a cargo-carrying vehicle such as an automobile, van, tractor, truck, semitrailer, tank car or rail car used for the transportation of cargo by any mode. Each cargo-carrying body (trailer, rail car, etc.) is a separate transport vehicle.

*UFC* means Uniform Freight Classification.

*UN* means United Nations.

*UN portable tank* means a intermodal tank having a capacity of more than 450 liters (118.9 gallons). It includes a shell fitted with service equipment and structural equipment, including stabilizing members external to the shell and skids, mountings or accessories to facilitate mechanical handling. A UN portable tank must be capable of being filled and discharged without the removal of its structural equipment and must be capable of being lifted when full. Cargo tanks, rail tank car tanks, non-metallic tanks, non-specification tanks, bulk bins, and IBCs and packagings made to cylinder specifications are not UN portable tanks.

*UN Recommendations* means the UN Recommendations on the Transport of Dangerous Goods.

*UN standard packaging* means a packaging conforming to standards in the UN Recommendations.

*Unit load device* means any type of freight container, aircraft container, aircraft pallet with a net, or aircraft pallet with a net over an igloo.

*United States* means a State of the United States, the District of Columbia, the Commonwealth of Puerto Rico, the Commonwealth of the Northern Mariana Islands, the Virgin Islands, American Samoa, Guam, or any other territory or possession of the United States designated by the Secretary.

*Vessel* includes every description of watercraft, used or capable of being used as a means of transportation on the water.

*Viscous liquid* means a liquid material which has a measured viscosity in excess of 2500 centistokes at 25 °C. (77 °F.) when determined in accordance with the procedures specified in ASTM Method D 445-72 "Kinematic Viscosity of Transparent and Opaque Liquids (and the Calculation of Dynamic Viscosity)" or ASTM Method D 1200-70 "Viscosity of Paints, Varnishes, and Lacquers by Ford Viscosity Cup."

*Volatility* refers to the relative rate of evaporation of materials to assume the vapor state.

*Water reactive material.* See §173.124(c) of this subchapter.

*Water resistant* means having a degree of resistance to permeability by and damage caused by water in liquid form.

*Wooden barrel* means a packaging made of natural wood, of round cross-section, having convex walls, consisting of staves and heads and fitted with hoops.

*W.T.* means watertight.

[Amdt. 171-32, 41 FR 15994, Apr. 15, 1976]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting §171.8, see the List of CFR Sections Affected which appears in the Finding Aids section of the printed volume and on GPO Access.

#### §171.9 Rules of construction.

(a) In this subchapter, unless the context requires otherwise:

- (1) Words imparting the singular include the plural;
- (2) Words imparting the plural include the singular; and
- (3) Words imparting the masculine gender include the feminine;

(b) In this subchapter, the word: (1) "Shall" is used in an imperative sense;

(2) "Must" is used in an imperative sense;

(3) "Should" is used in a recommendatory sense;

(4) "May" is used in a permissive sense to state authority or permission to do the act described, and the words "no person may \* \* \*" or "a person may not \* \* \*" means that no person is required, authorized, or permitted to do the act described; and