

§ 173.422 Additional requirements for excepted packages containing Class 7 (radioactive) materials.

An excepted package of Class 7 (radioactive) material that is prepared for shipment under the provisions of § 173.421, § 173.424, § 173.426, or § 173.428, or a small quantity of another hazard class transported by highway or rail (as defined in § 173.4) which also meets the requirements of one of these sections, is not subject to any additional requirements of this subchapter, except for the following:

(a) The outside of each package must be marked with:

(1) The UN identification number for the material preceded by the letters UN, as shown in column (4) of the Hazardous Materials Table in § 172.101 of this subchapter; and

(2) The letters “RQ” on a non-bulk packaging containing a hazardous substance.

(b) Sections 171.15 and 171.16 of this subchapter, pertaining to the reporting of incidents;

(c) Sections 174.750, 175.705, and 176.710 of this subchapter (depending on the mode of transportation), pertaining to the reporting of decontamination;

(d) The training requirements of subpart H of part 172 of this subchapter;

(e) For a material that meets the definition of a hazardous substance or a hazardous waste, the shipping paper requirements of subpart C of part 172 of this subchapter, except that such shipments are not subject to shipping paper requirements applicable to Class 7 (radioactive) materials in §§ 172.202(a)(5), 172.202(a)(6), 172.203(d) and 172.204(c)(4); and

(f) For transportation by vessel—

(1) The following information must be shown on a special transport document such as a bill of lading, air waybill, or other similar document:

(i) The UN identification number for the material preceded by the letters “UN”, as shown in column (4) of the Hazardous Materials Table in § 172.101 of this subchapter; and

(ii) The name and address of the consignor and the consignee.

(2) The certificate requirements in § 176.27 must be met.

[69 FR 3675, Jan. 26, 2004, as amended at 79 FR 40613, July 11, 2014; 80 FR 72928, Nov. 23, 2015; 85 FR 27897, May 11, 2020]

§ 173.423 Requirements for multiple hazard limited quantity Class 7 (radioactive) materials.

(a) Except as provided in § 173.4, when a limited quantity radioactive material meets the definition of another hazard class or division, it must be—

(1) Classed for the additional hazard;

(2) Packaged to conform with the requirements specified in § 173.421(a) through (e) or § 173.424(a) through (g), as appropriate; and

(3) Offered for transportation in accordance with the requirements applicable to the hazard for which it is classed.

(b) A limited quantity Class 7 (radioactive) material which is classed other than Class 7 in accordance with this subchapter is excepted from the requirements of §§ 173.422(a), 172.203(d), and 172.204(c)(4) of this subchapter if the entry “Limited quantity radioactive material” appears on the shipping paper in association with the basic description.

[Amdt. 173–244, 60 FR 50307, Sept. 28, 1995, as amended at 80 FR 72928, Nov. 23, 2015]

§ 173.424 Excepted packages for radioactive instruments and articles.

A radioactive instrument or article and its packaging are excepted from requirements in this subchapter for specification packaging, labeling, marking (except for the UN identification number marking requirement described in § 173.422(a)), and if not a hazardous substance or hazardous waste, shipping papers and the requirements of this subpart if:

(a) Each package meets the general design requirements of § 173.410;

(b) The activity of the instrument or article does not exceed the relevant limit listed in Table 4 in § 173.425;

(c) The total activity per package does not exceed the relevant limit listed in Table 4 in § 173.425;

(d) The radiation level at 10 cm (4 in) from any point on the external surface

of any unpackaged instrument or article does not exceed 0.1 mSv/hour (10 mrem/hour);

(e) The active material is completely enclosed by non-active components (a device performing the sole function of containing radioactive material shall not be considered to be an instrument or manufactured article);

(f) The radiation level at any point on the external surface of a package bearing the article or instrument does not exceed 0.005 mSv/hour (0.5 mrem/hour), or, for exclusive use domestic shipments, 0.02 mSv/hour (2 mrem/hour);

(g) The nonfixed (removable) radioactive surface contamination on the

external surface of the package does not exceed the limits specified in § 173.443(a);

(h) Except as provided in § 173.426, the package does not contain more than 15 g of uranium-235; and

(i) The package is otherwise prepared for shipment as specified in § 173.422.

[69 FR 3675, Jan. 26, 2004]

§ 173.425 Table of activity limits—excepted quantities and articles.

The limits applicable to instruments, articles, and limited quantities subject to exceptions under §§ 173.421 and 173.424 are set forth in table 4 as follows:

TABLE 4—ACTIVITY LIMITS FOR LIMITED QUANTITIES, INSTRUMENTS, AND ARTICLES

Nature of contents	Instruments and articles		Limited quantity package limits ¹
	Limits for each instrument or article ¹	Package limits ¹	
Solids:			
Special form	$10^{-2} A_1$	A_1	$10^{-3} A_1$
Normal form	$10^{-2} A_2$	A_2	$10^{-3} A_2$
Liquids:			
Tritiated water:			
<0.0037 TBq/L (0.1 Ci/L)			37 TBq (1,000 Ci)
0.0037 TBq to 0.037 TBq/L (0.1 Ci to 1.0 Ci/L)			3.7 TBq (100 Ci)
>0.037 TBq/L (1.0 Ci/L)			0.037 TBq (1.0 Ci)
Other Liquids	$10^{-3} A_2$	$10^{-1} A_2$	$10^{-4} A_2$
Gases:			
Tritium ²	$2 \times 10^{-2} A_2$	$2 \times 10^{-1} A_2$	$2 \times 10^{-2} A_2$
Special form	$10^{-3} A_1$	$10^{-2} A_1$	$10^{-3} A_1$
Normal form	$10^{-3} A_2$	$10^{-2} A_2$	$10^{-3} A_2$

¹ For mixtures of radionuclides see § 173.433(d).

² These values also apply to tritium in activated luminous paint and tritium adsorbed on solid carriers.

[Amdt. 173-244, 60 FR 50307, Sept. 28, 1995, as amended by Amdt. 173-244, 61 FR 20751, May 8, 1996; 63 FR 52849, Oct. 1, 1998; 65 FR 58630, Sept. 29, 2000; 66 FR 45383, Aug. 28, 2001; 69 FR 3676, Jan. 26, 2004]

§ 173.426 Excepted packages for articles containing natural uranium or thorium.

A manufactured article in which the sole Class 7 (radioactive) material content is natural uranium, unirradiated depleted uranium or natural thorium, and its packaging, are excepted from the requirements in this subchapter for specification packaging, labeling, marking (except for the UN identification number marking requirement described in § 173.422(a)), and if not a hazardous substance or hazardous waste, shipping papers and the requirements of this subpart if:

(a) Each package meets the general design requirements of § 173.410;

(b) The outer surface of the uranium or thorium is enclosed in an inactive sheath made of metal or other durable protective material;

(c) The conditions specified in § 173.421 (b), (c) and (d) are met; and

(d) The article is otherwise prepared for shipment as specified in § 173.422.

[Amdt. 173-244, 60 FR 50307, Sept. 28, 1995, as amended by Amdt. 173-244, 61 FR 20752, May 8, 1996; 69 FR 3676, Jan. 26, 2004; 80 FR 72928, Nov. 23, 2015]