

TABLE 8—INDUSTRIAL PACKAGE INTEGRITY REQUIREMENTS FOR LSA MATERIAL AND SCO

Contents	Industrial packaging type	
	Exclu- sive use shipment	Non- exclu- sive use shipment
LSA-I:		
Solid .....	IP-1	IP-1
Liquid .....	IP-1	IP-2
LSA-II:		
Solid .....	IP-2	IP-2
Liquid and gas .....	IP-2	IP-3
LSA-III .....	IP-2	IP-3
SCO-I .....	IP-1	IP-1
SCO-II .....	IP-2	IP-2

TABLE 9—CONVEYANCE ACTIVITY LIMITS FOR LSA MATERIAL AND SCO

Nature of material	Activity limit for conveyances
LSA-I .....	No limit.
LSA-II and LSA-III; noncombustible solids.	No limit.
LSA-II and LSA-III; Combustible solids and all liquids and gases.	100 A <sub>2</sub>
SCO .....	100 A <sub>2</sub>

[Amdt. 173-244, 60 FR 50307, Sept. 28, 1995, as amended by Amdt. 173-244, 61 FR 20752, May 8, 1996; 63 FR 52849, Oct. 1, 1998; 65 FR 58630, Sept. 29, 2000; 66 FR 45380, Aug. 28, 2001]

**§ 173.428 Empty Class 7 (radioactive) materials packaging.**

A packaging which previously contained Class 7 (radioactive) materials and has been emptied of contents as far as practical, is excepted from the shipping paper, certification, and marking requirements of this subchapter, and from requirements of this chapter, provided that—

(a) The packaging meets the requirements of §173.421(a) (2), (3), and (5) of this subpart;

(b) The packaging is in unimpaired condition and is securely closed so that there will be no leakage of Class 7 (radioactive) material under conditions normally incident to transportation;

(c) Internal contamination does not exceed 100 times the limits in §173.443(a);

(d) Any labels previously applied in conformance with subpart E of part 172 of this subchapter are removed, obliterated, or covered and the “Empty” label prescribed in §172.450 of this subchapter is affixed to the packaging; and

(e) The packaging is 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; 64 FR 51919, Sept. 27, 1999]

**§ 173.431 Activity limits for Type A and Type B packages.**

(a) Except for LSA material and SCO, a Type A package may not contain a quantity of Class 7 (radioactive) materials greater than A<sub>1</sub> for special form Class 7 (radioactive) material or A<sub>2</sub> for normal form Class 7 (radioactive) material as listed in §173.435, or, for Class 7 (radioactive) materials not listed in §173.435, as determined in accordance with §173.433.

(b) The limits on activity contained in a Type B, Type B(U), or Type B(M) package are those prescribed in §§173.416 and 173.417, or in the applicable approval certificate under §§173.471, 173.472 or 173.473.

**§ 173.433 Requirements for determining A<sub>1</sub> and A<sub>2</sub> values for radionuclides and for the listing of radionuclides on shipping papers and labels.**

(a) Values of A<sub>1</sub> and A<sub>2</sub> for individual radionuclides that are the basis for many activity limits elsewhere in this subchapter are given in the table in §173.435.

(b) For individual radionuclides whose identities are known, but which are not listed in the table in §173.435, the determination of the values of A<sub>1</sub> and A<sub>2</sub> requires approval from the Associate Administrator except that the values of A<sub>1</sub> and A<sub>2</sub> in table 10 may be used without obtaining approval from Associate Administrator.

(c) In calculating A<sub>1</sub> and A<sub>2</sub> values for a radionuclide not listed in the table in §173.435, a single radioactive decay chain in which the radionuclides are present in their naturally-occurring proportions, and in which no daughter nuclide has a half life either longer than 10 days or longer than that of the parent nuclide, will be considered as a single radionuclide, and the activity to be taken into account and the A<sub>1</sub> or A<sub>2</sub> value to be applied will be those corresponding to the parent nuclide of that chain. Otherwise, the parent and