

is the minimum elongation (as a percentage) of the reference steel to be used on fracture under tensile stress

($R_m \times A_o = 10,000 \times 145$; if tensile strength is in U.S. Standard units of

pounds per square inch), the wall thickness must not be less than:

| Capacity (C) in liters ¹ | Wall thickness (T) in mm | | | |
|-------------------------------------|--------------------------|--------------------------|------------------------------------|--------------------------|
| | Types 11A, 11B, 11N | | Types 21A, 21B, 21N, 31A, 31B, 31N | |
| | Unprotected | Protected | Unprotected | Protected |
| $C \leq 1000$ | 2.0 | 1.5 | 2.5 | 2.0 |
| $1000 < C \leq 2000$ | $T = C/2000 + 1.5$ | $T = C/2000 + 1.0$ | $T = C/2000 + 2.0$ | $T = C/2000 + 1.5$ |
| $2000 < C \leq 3000$ | $T = C/2000 + 1.5$ | $T = C/2000 + 1.0$ | $T = C/1000 + 1.0$ | $T = C/2000 + 1.5$ |

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■ 64. In § 178.812, paragraph (b)(1) is revised to read as follows:

§ 178.812 Top lift test.

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(b) *Special preparation for the top lift test.* (1) Metal, rigid plastic, and composite IBC design types must be loaded to twice the maximum permissible gross mass with the load being evenly distributed.

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PART 180—CONTINUING QUALIFICATION AND MAINTENANCE OF PACKAGINGS

■ 65. The authority citation for part 180 continues to read as follows:

Authority: 49 U.S.C. 5101–5127; 49 CFR 1.53.

■ 66. Section 180.350 is revised to read as follows:

§ 180.350 Applicability and definitions.

This subpart prescribes requirements, in addition to those contained in parts 107, 171, 172, 173 and 178 of this subchapter, applicable to any person responsible for the continuing qualification, maintenance, or periodic retesting of an IBC. The following definitions apply:

(a) *Remanufactured IBCs* are metal, rigid plastic or composite IBCs produced as a UN type from a non-UN type, or are converted from one UN design type to another UN design type. Remanufactured IBCs are subject to the same requirements of this subchapter that apply to new IBCs of the same type (also see § 178.801(c)(1) of this subchapter for design type definition).

(b) *Repaired IBCs* are metal, rigid plastic or composite IBCs that, as a result of impact or for any other cause (such as corrosion, embrittlement or other evidence of reduced strength as compared to the design type), are restored so as to conform to the design type and to be able to withstand the

design type tests. For the purposes of this subchapter, the replacement of the rigid inner receptacle of a composite IBC with a receptacle conforming to the original manufacturer's specification is considered repair. Routine maintenance of IBCs (see definition in paragraph (c) of this section) is not considered repair. The bodies of rigid plastic IBCs and the inner receptacles of composite IBCs are not repairable.

(c) *Routine maintenance of IBCs* is the routine performance on metal, rigid plastic or composite IBCs of operations such as:

(1) Cleaning;
(2) Removal and reinstallation or replacement of body closures (including associated gaskets), or of service equipment conforming to the original manufacturer's specifications provided that the leaktightness of the IBC is verified; or

(3) Restoration of structural equipment not directly performing a hazardous material containment or discharge pressure retention function so as to conform to the design type (for example, the straightening of legs or lifting attachments), provided the containment function of the IBC is not affected.

■ 67. In § 180.352, paragraphs (d)(1)(i) and (f) are revised and a new paragraph (d)(1)(iv) is added to read as follows:

§ 180.352 Requirements for retest and inspection of IBCs.

* * * * *

(d) * * *

(1) * * *

(i) The repaired IBC conforms to the original design type, is capable of withstanding the applicable design qualification tests, and is retested and inspected in accordance with the applicable requirements of this section;

* * * * *

(iv) The person performing the tests and inspections after the repair must durably mark the IBC near the manufacturer's UN design type marking to show the following:

(A) The country in which the tests and inspections were performed;

(B) The name or authorized symbol of the person performing the tests and inspections; and

(C) The date (month, year) of the tests and inspections.

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(f) *Record retention.* The owner or lessee of the IBC must keep records of periodic retests, initial and periodic inspections, and tests performed on the IBC if it has been repaired. Records must include design types and packaging specifications, test and inspection dates, name and address of test and inspection facilities, names or name of any persons conducting tests or inspections, and test or inspection specifics and results. Records must be kept for each packaging at each location where periodic tests are conducted, until such tests are successfully performed again or for at least 2.5 years from the date of the last test. These records must be made available for inspection by a representative of the Department on request.

■ 68. In § 180.605, paragraph (k) is revised to read as follows:

§ 180.605 Requirements for periodic testing, inspection and repair of portable tanks.

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(k) *Inspection and test markings.* (1) Each IM or UN portable tank must be durably and legibly marked, in English, with the date (month and year) of the last pressure test, the identification markings of the approval agency witnessing the test, when required, and the date of the last visual inspection. The marking must be placed on or near the metal identification plate, in letters and numerals of not less than 3 mm (0.118 inches) high when on the metal identification plate, and 12 mm (0.47 inches) high when on the portable tank.

(2) Each Specification DOT 51, 56, 57 or 60 portable tank must be durably and legibly marked, in English, with the date (month and year) of the most recent