

(10) For 400-series cargo tanks, minimum thickness is calculated according to tables in each applicable section of this subchapter for that specification: §178.346-2 for DOT 406 cargo tanks, §178.347-2 for DOT 407 cargo tanks, and §178.348-2 for DOT 412 cargo tanks.

[Amdt. 180-2, 54 FR 25032, June 12, 1989]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting § 180.407, see the List of CFR Sections Affected which appears in the Finding Aids section of the printed volume and on GPO Access.

**§ 180.409 Minimum qualifications for inspectors and testers.**

(a) Except as otherwise provided in this section, any person performing or witnessing the inspections and tests specified in §180.407(c) must—

(1) Be registered with the Federal Motor Carrier Safety Administration in accordance with part 107, subpart F of this chapter,

(2) Be familiar with DOT-specification cargo tanks and trained and experienced in use of the inspection and testing equipment needed, and

(3) Have the training and experience required to meet the definition of “Registered Inspector” in §171.8 of this chapter.

(b) A person who only performs annual external visual inspections and leakage tests on a cargo tank motor vehicle, owned or operated by that person, with a capacity of less than 13,250 L (3,500 gallons) used exclusively for flammable liquid petroleum fuels, is not required to meet the educational and years of experience requirements set forth in the definition of “Registered Inspector” in §171.8 of this subchapter. Although not required to meet the educational and years of experience requirements, a person who performs visual inspections or leakage tests or signs the inspection reports must have the knowledge and ability to perform such inspections and tests and must perform them as required by this subchapter, and must register with the Department as required by subpart F of part 107 of this chapter.

(c) A person who performs only annual external visual inspections and leakage tests on a permanently mounted non-bulk tank, owned or operated

by that person, for petroleum products as authorized by §173.8(c) of this subchapter, is not required to be registered in accordance with subpart F of part 107 of this chapter. In addition the person who signs the inspection report required by §180.417(b) of this subpart for such non-bulk tanks is not required to be registered. Although not required to register, a person who performs visual inspections or leakage tests or signs the inspection reports must have the knowledge and ability to perform such inspections and tests and must perform them as required by this subchapter.

(d) A motor carrier or cargo tank owner who meets the requirements of paragraph (a) of this section may use an employee who is not a Registered Inspector to perform a portion of the pressure retest required by §180.407(g). External and internal visual inspections must be accomplished by a Registered Inspector, but the hydrostatic or pneumatic pressure test, as set forth in §180.407(g)(1)(viii) and (ix), respectively, may be done by an employee who is not a Registered Inspector provided that—

(1) The employee is familiar with the cargo tank and is trained and experienced in the use of the inspection and testing equipment used;

(2) The employer submits certification that such employee meets the qualification requirements to the Associate Administrator, Attn: (PHH-32), Pipeline and Hazardous Materials Safety Administration, Department of Transportation, 400 Seventh Street, SW., Washington, DC 20590; and

(3) The employer retains a copy of the tester’s qualifications with the documents required by §180.417(b).

[Amdt. 180-2, 55 FR 37069, Sept. 7, 1990, as amended by Amdt. 180-3, 56 FR 66287, Dec. 20, 1991; 57 FR 45466, Oct. 1, 1992; Amdt. 180-11, 62 FR 1217, Jan. 8, 1997; 66 FR 45391, Aug. 28, 2001; 68 FR 19288, Apr. 18, 2003; 70 FR 56100, Sept. 23, 2005]

**§ 180.411 Acceptable results of tests and inspections.**

(a) *Corroded or abraded areas.* The minimum thickness may not be less than that prescribed in the applicable specification.

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(b) *Dents, cuts, digs and gouges.* For evaluation procedures, see CGA C-6 (IBR, see § 171.7 of this subchapter).

(1) For dents at welds or that include a weld, the maximum allowable depth is 1/2 inch. For dents away from welds, the maximum allowable depth is 1/10 of the greatest dimension of the dent, but in no case may the depth exceed one inch.

(2) The minimum thickness remaining beneath a cut, dig, or gouge may not be less than that prescribed in the applicable specification.

(c) *Weld or structural defects.* Any cargo tank with a weld defect such as a crack, pinhole, or incomplete fusion, or a structural defect must be taken out of hazardous materials service until repaired.

(d) *Leakage.* All sources of leakage must be properly repaired prior to returning a tank to hazardous materials service.

(e) *Relief valves.* Any pressure relief valve that fails to open and reclose at the prescribed pressure must be repaired or replaced.

(f) *Liner integrity.* Any defect shown by the test must be properly repaired.

(g) *Pressure test.* Any tank that fails to meet the acceptance criteria found in the individual specification that applies must be properly repaired.

[Amdt. 180-2, 54 FR 25032, June 12, 1989, as amended at 68 FR 75764, Dec. 31, 2003]

**§ 180.413 Repair, modification, stretching, rebarrelling, or mounting of specification cargo tanks.**

(a) *General.* Any repair, modification, stretching, rebarrelling, or mounting of a cargo tank must be performed in conformance with the requirements of this section.

(1) Except as otherwise provided in this section, each repair, modification, stretching, or rebarrelling of a specification cargo tank must be performed by a repair facility holding a valid National Board Certificate of Authorization for use of the National Board "R" stamp and must be made in accordance with the edition of the National Board Inspection Code in effect at the time the work is performed.

(i) Repairs, modifications, stretchings, and rebarrellings performed on non-ASME stamped speci-

fication cargo tanks may be performed by:

(A) A cargo tank manufacturer holding a valid ASME Certificate of Authorization for the use of the ASME "U" stamp using the quality control procedures used to obtain the Certificate of Authorization; or

(B) A repair facility holding a valid National Board Certificate of Authorization for use of the National Board "R" stamp using the quality control procedures used to obtain the Certificate of Authorization.

(ii) A repair, modification, stretching, or rebarrelling of a non-ASME stamped cargo tank may be done without certification by an Authorized Inspector, completion of the R-1 form, or being stamped with the "R" stamp.

(2) Prior to each repair, modification, stretching, rebarrelling, or mounting, the cargo tank motor vehicle must be emptied of any hazardous material lading. In addition, cargo tank motor vehicles used to transport flammable or toxic lading must be sufficiently cleaned of residue and purged of vapors so any potential hazard is removed, including void spaces between double bulkheads, piping and vapor recovery systems.

(3) Each person performing a repair, modification, stretching, rebarrelling or mounting of a DOT specification cargo tank must be registered in accordance with subpart F of part 107 of this chapter.

(b) *Repair.* The suitability of each repair affecting the structural integrity or lading retention capability of the cargo tank must be determined by the testing required either in the applicable manufacturing specification or in § 180.407(g)(1)(iv). Each repair of a cargo tank involving welding on the shell or head must be certified by a Registered Inspector. The following provisions apply to specific cargo tank repairs:

(1) DOT 406, DOT 407, and DOT 412 cargo tanks must be repaired in accordance with the specification requirements in effect at the time of repair;

(2) MC 300, MC 301, MC 302, MC 303, MC 305, and MC 306 cargo tanks must be repaired in accordance with either the most recent revision of the original