§ 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.

(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.


§ 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 specification 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: