§ 179.100–10 Postweld heat treatment.

(a) After welding is complete, steel tanks and all attachments welded thereto must be postweld heat treated as a unit in compliance with the requirements of AAR Specifications for Tank Cars, appendix W (IBR, see §171.7 of this subchapter).

(b) For aluminum tanks, postweld heat treatment is prohibited.

(c) Tank and welded attachments, fabricated from ASTM A 240/A 240M (IBR, see §171.7 of this subchapter), Type 304L or Type 316L materials do not require postweld heat treatment, but these materials do require a corrosion resistance test as specified in §179.100–7(c)(2).

§ 179.100–12 Manway nozzle, cover and protective housing.

(a) Manway nozzles must be of approved design of forged or rolled steel for steel tanks or of fabricated aluminum alloy for aluminum tanks, with an access opening of at least 18 inches inside diameter, or at least 14 inches by 18 inches around or oval. Each nozzle must be welded to the tank and the opening reinforced in an approved manner in compliance with the requirements of AAR Specifications for Tank Cars, appendix E, Figure E10 (IBR, see §171.7 of this subchapter).

(b) Manway cover shall be machined to approved dimensions and be of forged or rolled carbon or alloy steel, rolled aluminum alloy or nickel when required by the lading. Minimum thickness is listed in §179.101. Manway cover shall be attached to manway nozzle by through or stud bolts not entering tank, except as provided in §179.103–2(a).

§ 179.100–13 Venting, loading and unloading valves, measuring and sampling devices.

(a) Venting, loading and unloading valves must be of approved design, made of metal not subject to rapid deterioration by the lading, and must withstand the tank test pressure without leakage. The valves shall be bolted to seatings on the manway cover, except as provided in §179.103. Valve outlets shall be closed with approved screw plugs or other closures fastened to prevent misplacement.

(b) The interior pipes of the loading and unloading valves shall be anchored and, except as prescribed in §§173.314(j), 179.102 or 179.103, may be equipped with excess flow valves of approved design.

(c) Gauging device, sampling valve and thermometer well are not specification requirements. When used, they shall be of approved design, made of metal not subject to rapid deterioration by the lading, and shall withstand the tank test pressure without leakage. Interior pipes of the gauging device and sampling valve, except as prescribed in §§173.314(j), 179.102 or 179.103, may be equipped with excess flow valves of approved design. Interior pipe of the thermometer well shall be anchored in an