

**§ 178.338-4 Joints.**

- (a) All joints in the tank, and in the jacket if evacuated, must be as prescribed in Section VIII of the ASME Code (IBR, see §171.7 of this subchapter), except that a butt weld with one plate edge offset is not authorized.
- (b) Welding procedure and welder performance tests must be made in accordance with Section IX of the ASME Code. Records of the qualification must be retained by the tank manufacturer for at least five years and must be made available, upon request, to any duly identified representative of the Department, or the owner of the cargo tank.
- (c) All longitudinal welds in tanks and load bearing jackets must be located so as not to intersect nozzles or supports other than load rings and stiffening rings.
- (d) Substructures must be properly fitted before attachment and the welding sequence must minimize stresses due to shrinkage of welds.
- (e) Filler material containing more than 0.05 percent vanadium may not be used with quenched and tempered steel.
- (f) All tank nozzle-to-shell and nozzle-to-head welds must be full penetration welds.

(Approved by the Office of Management and Budget under control number 2137-0017)

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