

(2) Has the means to detect any non-conformity in the manufacturing, repair, inspection, testing, and qualification or maintenance program of the tank car; and

(3) Prevents non-conformities from recurring.

(b) At a minimum, the quality assurance program must have the following elements

(1) Statement of authority and responsibility for those persons in charge of the quality assurance program.

(2) An organizational chart showing the interrelationship between managers, engineers, purchasing, construction, inspection, testing, and quality control personnel.

(3) Procedures to ensure that the latest applicable drawings, design calculations, specifications, and instructions are used in manufacture, inspection, testing, and repair.

(4) Procedures to ensure that the fabrication and construction materials received are properly identified and documented.

(5) A description of the manufacturing, repair, inspection, testing, and qualification or maintenance program, including the acceptance criteria, so that an inspector can identify the characteristics of the tank car and the elements to inspect, examine, and test at each point.

(6) Monitoring and control of processes and product characteristics during production.

(7) Procedures for correction of nonconformities.

(8) Provisions indicating that the requirements of the AAR Specifications for Tank Cars (IBR, see §171.7 of this subchapter), apply.

(9) Qualification requirements of personnel performing non-destructive inspections and tests.

(10) Procedures for evaluating the inspection and test technique employed, including the accessibility of the area and the sensitivity and reliability of the inspection and test technique and minimum detectable crack length.

(11) Procedures for the periodic calibration and measurement of inspection and test equipment.

(12) A system for the maintenance of records, inspections, tests, and the in-

terpretation of inspection and test results.

(c) Each tank car facility shall ensure that only personnel qualified for each non-destructive inspection and test perform that particular operation.

(d) Each tank car facility shall provide written procedures to its employees to ensure that the work on the tank car conforms to the specification, AAR approval, and owner's acceptance criteria.

(e) Each tank car facility shall train its employees in accordance with subpart H of part 172 of this subchapter on the program and procedures specified in paragraph (b) of this section to ensure quality.

(f) No tank car facility may manufacture, repair, inspect, test, qualify or maintain tank cars subject to requirements of this subchapter, unless it is operating in conformance with a quality assurance program and written procedures required by paragraphs (a) and (b) of this section.

[Amdt. 179-50, 60 FR 49076, Sept. 21, 1995, as amended by Amdt. 179-50, 61 FR 33255, June 26, 1996; 68 FR 48571, Aug. 14, 2003; 68 FR 75759, Dec. 31, 2003]

**§ 179.8 Limitation on actions by states, local governments, and Indian tribes.**

Sections 5125 and 20106 of Title 49, United States Code, limit the authority of states, political subdivisions of states, and Indian tribes to impose requirements on the transportation of hazardous materials in commerce. A state, local, or Indian tribe requirement on the transportation of hazardous materials by rail may be preempted under either 49 U.S.C. 5125 or 20106, or both.

(a) Section 171.1(f) of this subchapter describes the circumstances under which 49 U.S.C. 5125 preempts a requirement of a state, political subdivision of a state, or Indian tribe.

(b) Under the Federal Railroad Safety Act (49 U.S.C. 20106), administered by the Federal Railroad Administration (see 49 CFR parts 200-244), laws, regulations and orders related to railroad safety, including security, shall be nationally uniform to the extent practicable. A state may adopt, or continue in force, a law, regulation, or order

## § 179.10

covering the same subject matter as a DOT regulation or order applicable to railroad safety and security (including the requirements in this subpart) only when an additional or more stringent state law, regulation, or order is necessary to eliminate or reduce an essentially local safety or security hazard; is not incompatible with a law, regulation, or order of the United States Government; and does not unreasonably burden interstate commerce.

[74 FR 1801, Jan. 13, 2009]

### Subpart B—General Design Requirements

#### § 179.10 Tank mounting.

(a) The manner in which tanks are attached to the car structure shall be approved. The use of rivets to secure anchors to tanks prohibited.

(b) [Reserved]

#### § 179.11 Welding certification.

(a) Welding procedures, welders and fabricators shall be approved.

(b) [Reserved]

#### § 179.12 Interior heater systems.

(a) Interior heater systems shall be of approved design and materials. If a tank is divided into compartments, a separate system shall be provided for each compartment.

(b) Each interior heater system shall be hydrostatically tested at not less than 13.79 bar (200 psig) and shall hold the pressure for 10 minutes without leakage or evidence of distress.

[Amdt. 179-52, 61 FR 28678, June 5, 1996, as amended by 66 FR 45390, Aug. 28, 2001]

#### § 179.13 Tank car capacity and gross weight limitation.

Except as provided in this section, tank cars, built after November 30, 1970, or any existing tank cars that are converted, may not exceed 34,500 gallons (130,597 L) capacity or 263,000 pounds (119,295 kg) gross weight on rail.

(a) For other than tank cars containing poisonous-by-inhalation material, a tank car may be loaded to a gross weight on rail of up to 286,000 pounds (129,727 kg) upon approval by the Associate Administrator for Safety, Federal Railroad Administration

## 49 CFR Ch. I (10-1-12 Edition)

(FRA). Tank cars must conform to the conditions of the approval and must be operated only under controlled interchange conditions agreed to by participating railroads.

(b) Tank cars containing poisonous-by-inhalation material meeting the applicable authorized tank car specifications listed in §173.244(a)(2) or (3), or §173.314(c) or (d) may have a gross weight on rail of up to 286,000 pounds upon approval by the Associate Administrator for Railroad Safety, FRA. Tank cars exceeding 263,000 pounds and up to 286,000 pounds gross weight on rail must meet the requirements of AAR Standard S-286, Free/Unrestricted Interchange for 286,000 lb Gross Rail Load Cars (IBR, see §171.7 of this subchapter). Any increase in weight above 263,000 pounds may not be used to increase the quantity of the contents of the tank car.

[74 FR 1802, Jan. 13, 2009, as amended at 75 FR 27216, May 14, 2010; 77 FR 37985, June 25, 2012]

#### § 179.14 Coupler vertical restraint system.

(a) *Performance standard.* Each tank car shall be equipped with couplers capable of sustaining, without disengagement or material failure, vertical loads of at least 200,000 pounds (90,718.5 kg) applied in upward and downward directions in combination with buff loads of 2,000 pounds (907.2 kg), when coupled to cars which may or may not be equipped with couplers having this vertical restraint capability.

(b) *Test verification.* Except as provided in paragraph (d) of this section, compliance with the requirements of paragraph (a) of this section shall be achieved by verification testing of the coupler vertical restraint system in accordance with paragraph (c) of this section.

(c) *Coupler vertical restraint tests.* A coupler vertical restraint system shall be tested under the following conditions:

(1) The test coupler shall be tested with a mating coupler (or simulated coupler) having only frictional vertical force resistance at the mating interface; or a mating coupler (or simulated coupler) having the capabilities described in paragraph (a) of this section;