

inches laterally (except in modular units which cannot be spaced closer than 30 inches) and 30 inches end to end, and should be elevated at least 12 inches from the floor. If double-deck bunks are used, they should be spaced not less than 48 inches both laterally and end to end. The minimum clear space between the lower and upper bunk should be not less than 27 inches. Triple-deck bunks should not be used.

(e) Floors should be of smooth and tight construction and should be kept in good repair.

(f) All living quarters should be provided with windows the total of which should be not less than 10 percent of the floor area. At least one-half of each window designed to be opened should be so constructed that it can be opened for purposes of ventilation. Durable opaque window coverings should be provided to reduce the entrance of light during sleeping hours.

(g) All exterior openings should be effectively screened with 16-mesh material. All screen doors should be equipped with self-closing devices.

(h) In a facility where workers cook, live, and sleep, a minimum of 90 square feet per person should be provided. Sanitary facilities should be provided for storing and preparing food.

(i) In camp cars where meals are provided, adequate facilities to feed employees within a 60-minute period should be provided.

(j) All heating, cooking, ventilation, air conditioning and water heating equipment should be installed in accordance with applicable local regulations governing such installations.

(k) Every camp car should be provided with equipment capable of maintaining a temperature of at least 68 degrees F. during normal cold weather and no greater than 78 degrees F., or 20 degrees below ambient, whichever is warmer, during normal hot weather.

(l) Existing camp cars may be grandfathered so as to only be subject to subparagraphs (c), (d), (f), (h), and (k), in accordance with the following as recommended maximums:

13 (c), (d), and (h)—by January 1, 1994.

13(f)—Indefinitely insofar as the ten percent (10%) requirement for window spacing is concerned.

13(k)—by January 1, 1992.

14. *Location.* Camp cars occupied exclusively by individuals employed for the purpose of maintaining the right-of-way of a railroad should be located as far as practical from where "switching or humping operations" of "placarded cars" occur, as defined in 49 CFR 228.101 (c)(3) and (c)(4), respectively. Every reasonable effort should be made to locate these camp cars at least one-half mile (2,640 feet) from where such switching or humping occurs. In the event employ-

ees housed in camp cars located closer than one-half mile (2,640 feet) from where such switching or humping of cars takes place are exposed to an unusual hazard at such location, the employees involved should be housed in other suitable accommodations. An unusual hazard means an unsafe condition created by an occurrence other than normal switching or humping.

15. *General provisions.* (a) Sleeping quarters are not considered to be "free of interruptions caused by noise under the control of the railroad" if noise levels attributable to noise sources under the control of the railroad exceed an Leq (8) value of 55 dB(A), with windows closed and exclusive of cooling, heating, and ventilating equipment.

(b) A railroad should, within 48 hours after notice of noncompliance with these recommendations, fix the deficient condition(s). Where holidays or weekends intervene, the railroad should fix the condition within 8 hours after the employees return to work. In the event such condition(s) affects the safety or health of the employees, such as water, cooling, heating or eating facilities, the railroad should provide alternative arrangements for housing and eating until the non-complying condition is fixed.

[55 FR 30893, July 27, 1990]

## PART 229—RAILROAD LOCOMOTIVE SAFETY STANDARDS

### Subpart A—General

Sec.

- 229.1 Scope.
- 229.3 Applicability.
- 229.4 Information collection.
- 229.5 Definitions.
- 229.7 Prohibited acts.
- 229.9 Movement of non-complying locomotives.
- 229.11 Locomotive identification.
- 229.13 Control of locomotives.
- 229.14 Non-MU control cab locomotives.
- 229.17 Accident reports.
- 229.19 Prior waivers.

### Subpart B—Inspections and Tests

- 229.21 Daily inspection.
- 229.23 Periodic inspection: General.
- 229.25 Tests: Every periodic inspection.
- 229.27 Annual tests.
- 229.29 Biennial tests.
- 229.31 Main reservoir tests.
- 229.33 Out-of-use credit.

### Subpart C—Safety Requirements

#### GENERAL REQUIREMENTS

- 229.41 Protection against personal injury.
- 229.43 Exhaust and battery gases.
- 229.45 General condition.

## § 229.1

## 49 CFR Ch. II (10–1–05 Edition)

### BRAKE SYSTEM

- 229.46 Brakes: General.
- 229.47 Emergency brake valve.
- 229.49 Main reservoir system.
- 229.51 Aluminum main reservoirs.
- 229.53 Brake gauges.
- 229.55 Piston travel.
- 229.57 Foundation brake gear.
- 229.59 Leakage.

### DRAFT SYSTEM

- 229.61 Draft system.

### SUSPENSION SYSTEM

- 229.63 Lateral motion.
- 229.64 Plain bearings.
- 229.65 Spring rigging.
- 229.67 Trucks.
- 229.69 Side bearings.
- 229.71 Clearance above top of rail.
- 229.73 Wheel sets.
- 229.75 Wheel and tire defects.

### ELECTRICAL SYSTEM

- 229.77 Current collectors.
- 229.79 Third rail shoes.
- 229.81 Emergency pole; shoe insulation.
- 229.83 Insulation or grounding of metal parts.
- 229.85 Doors and cover plates marked “Danger”.
- 229.87 Hand-operated switches.
- 229.89 Jumpers; cable connections.
- 229.91 Motors and generators.

### INTERNAL COMBUSTION EQUIPMENT

- 229.93 Safety cut-off device.
- 229.95 Venting.
- 229.97 Grounding fuel tanks.
- 229.99 Safety hangers.
- 229.101 Engines.

### STEAM GENERATORS

- 229.103 Safe working pressure; factor of safety.
- 229.105 Steam generator number.
- 229.107 Pressure gauge.
- 229.109 Safety valves.
- 229.111 Water-flow indicator.
- 229.113 Warning notice.

### CABS AND CAB EQUIPMENT

- 229.115 Slip/slide alarms.
- 229.117 Speed indicators.
- 229.119 Cabs, floors, and passageways.
- 229.121 Locomotive cab noise.
- 229.123 Pilots, snowplows, end plates.
- 229.125 Headlights and auxiliary lights.
- 229.127 Cab lights.
- 229.129 Audible warning device.
- 229.131 Sanders.
- 229.133 Interim locomotive conspicuity measures—auxiliary external lights.
- 229.135 Event recorders.
- 229.137 Sanitation, general requirements.

- 229.139 Sanitation, servicing requirements.

### Subpart D—Design Requirements

- 229.141 Body structure, MU locomotives.
- APPENDIX A TO PART 229—FORM FRA 6180–49A [NOTE]
- APPENDIX B TO PART 229—SCHEDULE OF CIVIL PENALTIES
- APPENDIX C TO PART 229—FRA LOCOMOTIVE STANDARDS—CODE OF DEFECTS [NOTE]
- APPENDIX D TO PART 229—CRITERIA FOR CERTIFICATION OF CRASHWORTHY EVENT RECORDER MEMORY MODULE

AUTHORITY: 49 U.S.C. 20103, 20107, 20133, 20137–38, 20143, 20701–03, 21301–02, 21304; 28 U.S.C. 2401, note; and 49 CFR 1.49(c), (m).

SOURCE: 45 FR 21109, Mar. 31, 1980, unless otherwise noted.

### Subpart A—General

#### § 229.1 Scope.

This part prescribes minimum Federal safety standards for all locomotives except those propelled by steam power.

#### § 229.3 Applicability.

(a) Except as provided in paragraphs (b) through (e) of this section, this part applies to all standard gage railroads.

(b) This part does not apply to:

(1) A railroad that operates only on track inside an installation which is not part of the general railroad system of transportation; or

(2) Rapid transit operations in an urban area that are not connected with the general railroad system of transportation.

(c) Paragraphs (a) and (b) of § 229.125 do not apply to Tier II passenger equipment as defined in § 238.5 of this chapter (*i.e.*, passenger equipment operating at speeds exceeding 125 mph but not exceeding 150 mph).

(d) On or after November 8, 1999, paragraphs (a)(1) and (b)(1) of § 229.141 do not apply to “passenger equipment” as defined in § 238.5 of this chapter, unless such equipment is excluded from the requirements of §§ 238.203 through 238.219, and § 238.223 of this chapter by operation of § 238.201(a)(2) of this chapter.

(e) Paragraphs (a)(2) through (a)(4), and (b)(2) through (b)(4) of § 229.141 do not apply to “passenger equipment” as defined in § 238.5 of this chapter that is