

Section	Violation	Willful Violation <sup>1</sup>
213.323 Track gage .....	5,000	7,500
213.327 Alinement .....	5,000	7,500
213.329 Curves, elevation and speed limits .....	2,500	5,000
213.331 Track surface .....	5,000	7,500
213.333 Automated vehicle inspection systems .....	5,000	7,500
213.335 Crossties		
(a) Material used .....	1,000	2,000
(b) Distribution of ties .....	2,500	5,000
(c) Sufficient number of nondefective ties, non-concrete .....	1,000	2,000
(d) Sufficient number of nondefective concrete ties .....	1,000	2,000
(e) Joint ties .....	2,500	5,000
(f) Track constructed without crossties .....	2,500	5,000
(g) Non-defective ties surrounding defective ties .....	2,500	5,000
(h) Tie plates .....	2,500	5,000
(i) Tie plates .....	1,000	2,000
213.337 Defective rails .....	5,000	7,500
213.339 Inspection of rail in service .....	2,500	5,000
213.341 Inspection of new rail .....	2,500	5,000
213.343 Continuous welded rail (a) through (h) .....	5,000	7,500
213.345 Vehicle qualification testing (a) through (b) .....	5,000	7,500
(c) through (e) .....	2,500	5,000
213.347 Automotive or railroad crossings at grade .....	5,000	7,500
213.349 Rail end mismatch .....	2,500	5,000
213.351 (a) Rail joints .....	2,500	5,000
213.351 (b) Rail joints .....	2,500	5,000
213.351 (c) Rail joints .....	5,000	7,500
213.351 (d) Rail joints .....	2,500	5,000
213.351 (e) Rail joints .....	2,500	5,000
213.351 (f) Rail joints .....	5,000	7,500
213.351 (g) Rail joints .....	5,000	7,500
213.352 Torch cut rails .....	2,500	5,000
213.353 Turnouts, crossovers, transition devices .....	1,000	2,000
213.355 Frog guard rails and guard faces; gage .....	2,500	5,000
213.357 Derails .....	2,500	5,000
213.359 Track stiffness .....	5,000	7,500
213.361 Right of way .....	5,000	7,500
213.365 Visual inspections .....	2,500	5,000
213.367 Special inspections .....	2,500	5,000
213.369 Inspections records .....	2,000	4,000

<sup>1</sup> A penalty may be assessed against an individual only for a willful violation. The Administrator reserves the right to assess a penalty of up to \$100,000 for any violation where circumstances warrant. See 49 CFR part 209, appendix A.

<sup>2</sup> In addition to assessment of penalties for each instance of noncompliance with the requirements identified by this footnote, track segments designated as excepted track that are or become ineligible for such designation by virtue of noncompliance with any of the requirements to which this footnote applies are subject to all other requirements of Part 213 until such noncompliance is remedied.

[63 FR 34029, June 22, 1998; 63 FR 45959, Aug. 28, 1998, as amended at 70 FR 66299, Nov. 2, 2005; 73 FR 79701, Dec. 30, 2008; 74 FR 43006, Aug. 25, 2009]

## PART 214—RAILROAD WORKPLACE SAFETY

### Subpart A—General

Sec.

- 214.1 Purpose and scope.
- 214.3 Application.
- 214.4 Preemptive effect.
- 214.5 Responsibility for compliance.
- 214.7 Definitions.

### Subpart B—Bridge Worker Safety Standards

- 214.101 Purpose and scope.
- 214.103 Fall protection, generally.
- 214.105 Fall protection systems standards and practices.
- 214.107 Working over or adjacent to water.

- 214.109 Scaffolding.
- 214.111 Personal protective equipment, generally.
- 214.113 Head protection.
- 214.115 Foot protection.
- 214.117 Eye and face protection.

### Subpart C—Roadway Worker Protection

- 214.301 Purpose and scope.
- 214.302 Information collection requirements.
- 214.303 Railroad on-track safety programs, generally.
- 214.305 Compliance dates.
- 214.307 Review and approval of individual on-track safety programs by FRA.
- 214.309 On-track safety program documents.
- 214.311 Responsibility of employers.

## Federal Railroad Administration, DOT

## § 214.4

- 214.313 Responsibility of individual roadway workers.
- 214.315 Supervision and communication.
- 214.317 On-track safety procedures, generally.
- 214.319 Working limits, generally.
- 214.321 Exclusive track occupancy.
- 214.323 Foul time.
- 214.325 Train coordination.
- 214.327 Inaccessible track.
- 214.329 Train approach warning provided by watchmen/lookouts.
- 214.331 Definite train location.
- 214.333 Informational line-ups of trains.
- 214.335 On-track safety procedures for roadway work groups.
- 214.337 On-track safety procedures for lone workers.
- 214.339 Audible warning from trains.
- 214.341 Roadway maintenance machines.
- 214.343 Training and qualification, general.
- 214.345 Training for all roadway workers.
- 214.347 Training and qualification for lone workers.
- 214.349 Training and qualification of watchmen/lookouts.
- 214.351 Training and qualification of flagmen.
- 214.353 Training and qualification of roadway workers who provide on-track safety for roadway work groups.
- 214.355 Training and qualification in on-track safety for operators of roadway maintenance machines.

### Subpart D—On-Track Roadway Maintenance Machines and Hi-Rail Vehicles

- 214.501 Purpose and scope.
- 214.503 Good-faith challenges; procedures for notification and resolution.
- 214.505 Required environmental control and protection systems for new on-track roadway maintenance machines with enclosed cabs.
- 214.507 Required safety equipment for new on-track roadway maintenance machines.
- 214.509 Required visual illumination and reflective devices for new on-track roadway maintenance machines.
- 214.511 Required audible warning devices for new on-track roadway maintenance machines.
- 214.513 Retrofitting of existing on-track roadway maintenance machines; general.
- 214.515 Overhead covers for existing on-track roadway maintenance machines.
- 214.517 Retrofitting of existing on-track roadway maintenance machines manufactured on or after January 1, 1991.
- 214.518 Safe and secure positions for riders.
- 214.519 Floors, decks, stairs, and ladders of on-track roadway maintenance machines.

- 214.521 Flagging equipment for on-track roadway maintenance machines and hi-rail vehicles.
- 214.523 Hi-rail vehicles.
- 214.525 Towing with on-track roadway maintenance machines or hi-rail vehicles.
- 214.527 On-track roadway maintenance machines; inspection for compliance and schedule for repairs.
- 214.529 In-service failure of primary braking system.
- 214.531 Schedule of repairs; general.
- 214.533 Schedule of repairs subject to availability of parts.

### APPENDIX A TO PART 214—SCHEDULE OF CIVIL PENALTIES

AUTHORITY: 49 U.S.C. 20103, 20107, 21301, 21304; 28 U.S.C. 2461, note; and 49 CFR 1.49.

SOURCE: 57 FR 28127, June 24, 1992, unless otherwise noted.

## Subpart A—General

### § 214.1 Purpose and scope.

(a) The purpose of this part is to prevent accidents and casualties to employees involved in certain railroad inspection, maintenance and construction activities.

(b) This part prescribes minimum Federal safety standards for the railroad workplace safety subjects addressed herein. This part does not restrict a railroad or railroad contractor from adopting and enforcing additional or more stringent requirements not inconsistent with this part.

### § 214.3 Application.

This part applies to railroads that operate rolling equipment on track that is part of the general railroad system of transportation.

### § 214.4 Preemptive effect.

Under 49 U.S.C. 20106 (formerly section 205 of the Federal Railroad Safety Act of 1970 (45 U.S.C. 434)), issuance of the regulations in this part preempts any State law, rule, regulation, order, or standard covering the same subject matter, except a provision directed at an essentially local safety hazard that is not incompatible with this part and that does not unreasonably burden on interstate commerce.

[61 FR 65975, Dec. 16, 1996]

## § 214.5

## 49 CFR Ch. II (10–1–11 Edition)

### § 214.5 Responsibility for compliance.

Any person (an entity of any type covered under 1 U.S.C. 1, including but not limited to the following: a railroad; a manager, supervisor, official, or other employee or agent of a railroad; any owner, manufacturer, lessor, or lessee of railroad equipment, track, or facilities; any independent contractor providing goods or services to a railroad; and any employee of such owner, manufacturer, lessor, lessee, or independent contractor) who violates any requirement of this part or causes the violation of any such requirement is subject to a civil penalty of at least \$650 and not more than \$25,000 per violation, except that penalties may be assessed against individuals only for willful violations, and where a grossly negligent violation or a pattern of repeated violations has created an imminent hazard of death or injury, or has caused death or injury, a penalty not to exceed \$100,000 per violation may be assessed. See appendix A to this part for a statement of agency civil penalty policy.

[57 FR 28127, June 24, 1992, as amended at 63 FR 11620, Mar. 10, 1998; 69 FR 30593, May 28, 2004; 72 FR 51196, Sept. 6, 2007; 73 FR 79701, Dec. 30, 2008]

### § 214.7 Definitions.

*Adjacent tracks* mean two or more tracks with track centers spaced less than 25 feet apart.

*Anchorage* means a secure point of attachment for lifelines, lanyards or deceleration devices that is independent of the means of supporting or suspending the employee.

*Body belt* means a strap that can be secured around the waist or body and attached to a lanyard, lifeline, or deceleration device.

*Body harness* means a device with straps that is secured about the person in a manner so as to distribute the fall arrest forces over (at least) the thighs, shoulders, pelvis, waist, and chest and that can be attached to a lanyard, lifeline, or deceleration device.

*Class I, Class II, and Class III* have the meaning assigned by, Title 49 Code of Federal Regulations part 1201, General Instructions 1–1.

*Competent person* means one who is capable of identifying existing and pre-

dictable hazards in the workplace and who is authorized to take prompt corrective measures to eliminate them.

*Control operator* means the railroad employee in charge of a remotely controlled switch or derail, an interlocking, or a controlled point, or a segment of controlled track.

*Controlled track* means track upon which the railroad's operating rules require that all movements of trains must be authorized by a train dispatcher or a control operator.

*Deceleration device* means any mechanism, including, but not limited to, rope grabs, ripstitch lanyards, specially woven lanyards, tearing or deforming lanyards, and automatic self-retracting lifelines/lanyards that serve to dissipate a substantial amount of energy during a fall arrest, or otherwise limit the energy on a person during fall arrest.

*Definite train location* means a system for establishing on-track safety by providing roadway workers with information about the earliest possible time that approaching trains may pass specific locations as prescribed in § 214.331 of this part.

*Designated official* means any person(s) designated by the employer to receive notification of non-complying conditions on on-track roadway maintenance machines and hi-rail vehicles.

*Effective securing device* when used in relation to a manually operated switch or derail means one which is:

- (a) Vandal resistant;
- (b) Tamper resistant; and
- (c) Designed to be applied, secured, uniquely tagged and removed only by the class, craft or group of employees for whom the protection is being provided.

*Employee* means an individual who is engaged or compensated by a railroad or by a contractor to a railroad to perform any of the duties defined in this part.

*Employer* means a railroad, or a contractor to a railroad, that directly engages or compensates individuals to perform any of the duties defined in this part.

*Equivalent* means alternative designs, materials, or methods that the railroad or railroad contractor can demonstrate will provide equal or greater safety for

employees than the means specified in this part.

*Exclusive track occupancy* means a method of establishing working limits on controlled track in which movement authority of trains and other equipment is withheld by the train dispatcher or control operator, or restricted by flagmen, as prescribed in §214.321 of this part.

*Flagman* when used in relation to roadway worker safety means an employee designated by the railroad to direct or restrict the movement of trains past a point on a track to provide on-track safety for roadway workers, while engaged solely in performing that function.

*Foul time* is a method of establishing working limits on controlled track in which a roadway worker is notified by the train dispatcher or control operator that no trains will operate within a specific segment of controlled track until the roadway worker reports clear of the track, as prescribed in §214.323 of this part.

*Fouling a track* means the placement of an individual or an item of equipment in such proximity to a track that the individual or equipment could be struck by a moving train or on-track equipment, or in any case is within four feet of the field side of the near running rail.

*Free fall* means the act of falling before the personal fall arrest system begins to apply force to arrest the fall.

*Free fall distance* means the vertical displacement of the fall arrest attachment point on a person's body harness between onset of the fall and the point at which the system begins to apply force to arrest the fall. This distance excludes deceleration distance and lifeline and lanyard elongation, but includes any deceleration device slide distance or self-retracting lifeline/lanyard extension before they operate and fall arrest forces occur.

*Hi-rail vehicle* means a roadway maintenance machine that is manufactured to meet Federal Motor Vehicle Safety Standards and is equipped with retractable flanged wheels so that the vehicle may travel over the highway or on railroad tracks.

*Hi-rail vehicle, new* means a hi-rail vehicle that is ordered after December 26,

2003 or completed after September 27, 2004.

*Inaccessible track* means a method of establishing working limits on non-controlled track by physically preventing entry and movement of trains and equipment.

*Individual train detection* means a procedure by which a lone worker acquires on-track safety by seeing approaching trains and leaving the track before they arrive and which may be used only under circumstances strictly defined in this part.

*Informational line-up of trains* means information provided in a prescribed format to a roadway worker by the train dispatcher regarding movements of trains authorized or expected on a specific segment of track during a specific period of time.

*Lanyard* means a flexible line of rope, wire rope, or strap that is used to secure a body harness to a deceleration device, lifeline, or anchorage.

*Lifeline* means a component of a fall arrest system consisting of a flexible line that connects to an anchorage at one end to hang vertically (vertical lifeline) or to an anchorage at both ends to stretch horizontally (horizontal lifeline), and that serves as a means for connecting other components of a personal fall arrest system to the anchorage.

*Lone worker* means an individual roadway worker who is not being afforded on-track safety by another roadway worker, who is not a member of a roadway work group, and who is not engaged in a common task with another roadway worker.

*Non-controlled track* means track upon which trains are permitted by railroad rule or special instruction to move without receiving authorization from a train dispatcher or control operator.

*On-track roadway maintenance machine* means a self-propelled, rail-mounted, non-highway, maintenance machine whose light weight is in excess of 7,500 pounds, and whose purpose is not for the inspection of railroad track.

*On-track roadway maintenance machine, existing* means any on-track roadway maintenance machine that does not meet the definition of a "new

## §214.7

on-track roadway maintenance machine.”

*On-track roadway maintenance machine, new* means an on-track roadway maintenance machine that is ordered after December 26, 2003, and completed after September 27, 2004.

*On-track safety* means a state of freedom from the danger of being struck by a moving railroad train or other railroad equipment, provided by operating and safety rules that govern track occupancy by personnel, trains and on-track equipment.

*Personal fall arrest system* means a system used to arrest the fall of a person from a working level. It consists of an anchorage, connectors, body harness, lanyard, deceleration device, lifeline, or combination of these.

*Qualified* means a status attained by an employee who has successfully completed any required training for, has demonstrated proficiency in, and has been authorized by the employer to perform the duties of a particular position or function.

*Railroad* means all forms of non-highway ground transportation that run on rails or electro-magnetic guideways, including (1) commuter or other short-haul rail passenger service in a metropolitan or suburban area, and (2) high-speed ground transportation systems that connect metropolitan areas, without regard to whether they use new technologies not associated with traditional railroads. Such term does not include rapid transit operations within an urban area that are not connected to the general railroad system of transportation.

*Railroad bridge* means a structure supporting one or more railroad tracks above land or water with a span length of 12 feet or more measured along the track centerline. This term applies to the entire structure between the faces of the backwalls of abutments or equivalent components, regardless of the number of spans, and includes all such structures, whether of timber, stone, concrete, metal, or any combination thereof.

*Railroad bridge worker or bridge worker* means any employee of, or employee of a contractor of, a railroad owning or responsible for the construction, inspection, testing, or maintenance of a

## 49 CFR Ch. II (10–1–11 Edition)

bridge whose assigned duties, if performed on the bridge, include inspection, testing, maintenance, repair, construction, or reconstruction of the track, bridge structural members, operating mechanisms and water traffic control systems, or signal, communication, or train control systems integral to that bridge.

*Restricted speed* means a speed that will permit a train or other equipment to stop within one-half the range of vision of the person operating the train or other equipment, but not exceeding 20 miles per hour, unless further restricted by the operating rules of the railroad.

*Roadway maintenance machine* means a device powered by any means of energy other than hand power which is being used on or near railroad track for maintenance, repair, construction or inspection of track, bridges, roadway, signal, communications, or electric traction systems. Roadway maintenance machines may have road or rail wheels or may be stationary.

*Roadway work group* means two or more roadway workers organized to work together on a common task.

*Roadway worker* means any employee of a railroad, or of a contractor to a railroad, whose duties include inspection, construction, maintenance or repair of railroad track, bridges, roadway, signal and communication systems, electric traction systems, roadway facilities or roadway maintenance machinery on or near track or with the potential of fouling a track, and flagmen and watchmen/lookouts as defined in this section.

*Self-retracting lifeline/lanyard* means a deceleration device that contains a drum-wound line that may be slowly extracted from, or retracted onto, the drum under slight tension during normal employee movement, and which, after onset of a fall, automatically locks the drum and arrests the fall.

*Snap-hook* means a connector comprised of a hook-shaped member with a normally closed keeper, that may be opened to permit the hook to receive an object and, when released, automatically closes to retain the object.

*Train approach warning* means a method of establishing on-track safety

by warning roadway workers of the approach of trains in ample time for them to move to or remain in a place of safety in accordance with the requirements of this part.

*Train coordination* means a method of establishing working limits on track upon which a train holds exclusive authority to move whereby the crew of that train yields that authority to a roadway worker.

*Train dispatcher* means the railroad employee assigned to control and issue orders governing the movement of trains on a specific segment of railroad track in accordance with the operating rules of the railroad that apply to that segment of track.

*Watchman/lookout* means an employee who has been annually trained and qualified to provide warning to roadway workers of approaching trains or on-track equipment. Watchmen/lookouts shall be properly equipped to provide visual and auditory warning such as whistle, air horn, white disk, red flag, lantern, fusee. A watchman/lookout's sole duty is to look out for approaching trains/on-track equipment and provide at least fifteen seconds advanced warning to employees before arrival of trains/on-track equipment.

*Working limits* means a segment of track with definite boundaries established in accordance with this part upon which trains and engines may move only as authorized by the roadway worker having control over that defined segment of track. Working limits may be established through "exclusive track occupancy," "inaccessible track," "foul time" or "train coordination" as defined herein.

[57 FR 28127, June 24, 1992, as amended at 61 FR 65975, Dec. 16, 1996; 67 FR 1906, Jan. 15, 2002; 68 FR 44407, July 28, 2003]

### Subpart B—Bridge Worker Safety Standards

#### § 214.101 Purpose and scope.

(a) The purpose of this subpart is to prevent accidents and casualties arising from the performance of work on railroad bridges.

(b) This subpart prescribes minimum railroad safety rules for railroad employees performing work on bridges. Each railroad and railroad contractor

may prescribe additional or more stringent operating rules, safety rules, and other special instructions not inconsistent with this subpart.

(c) These provisions apply to all railroad employees, railroads, and railroad contractors performing work on railroad bridges.

(d) Any working conditions involving the protection of railroad employees working on railroad bridges not within the subject matter addressed by this chapter, including respiratory protection, hazard communication, hearing protection, welding and lead exposure standards, shall be governed by the regulations of the U.S. Department of Labor, Occupational Safety and Health Administration.

#### § 214.103 Fall protection, generally.

(a) Except as provided in paragraphs (b) through (d) of this section, when bridge workers work twelve feet or more above the ground or water surface, they shall be provided and shall use a personal fall arrest system or safety net system. All fall protection systems required by this section shall conform to the standards set forth in § 214.105 of this subpart.

(b)(1) This section shall not apply if the installation of the fall arrest system poses a greater risk than the work to be performed. In any action brought by FRA to enforce the fall protection requirements, the railroad or railroad contractor shall have the burden of proving that the installation of such device poses greater exposure to risk than performance of the work itself.

(2) This section shall not apply to bridge workers engaged in inspection of railroad bridges conducted in full compliance with the following conditions:

(i) The railroad or railroad contractor has a written program in place that requires training in, adherence to, and use of safe procedures associated with climbing techniques and procedures to be used;

(ii) The bridge worker to whom this exception applies has been trained and qualified according to that program to perform bridge inspections, has been previously and voluntarily designated to perform inspections under the provision of that program, and has accepted the designation;

**§214.105**

(iii) The bridge worker to whom this exception applies is familiar with the appropriate climbing techniques associated with all bridge structures the bridge worker is responsible for inspecting;

(iv) The bridge worker to whom this exception applies is engaged solely in moving on or about the bridge or observing, measuring and recording the dimensions and condition of the bridge and its components; and

(v) The bridge worker to whom this section applies is provided all equipment necessary to meet the needs of safety, including any specialized alternative systems required.

(c) This section shall not apply where bridge workers are working on a railroad bridge equipped with walkways and railings of sufficient height, width, and strength to prevent a fall, so long as bridge workers do not work beyond the railings, over the side of the bridge, on ladders or other elevation devices, or where gaps or holes exist through which a body could fall. Where used in place of fall protection as provided for in §214.105, this paragraph (c) is satisfied by:

(1) Walkways and railings meeting standards set forth in the American Railway Engineering Association's Manual for Railway Engineering; and

(2) Roadways attached to railroad bridges, provided that bridge workers on the roadway deck work or move at a distance six feet or more from the edge of the roadway deck, or from an opening through which a person could fall.

(d) This section shall not apply where bridge workers are performing repairs or inspections of a minor nature that are completed by working exclusively between the outside rails, including but not limited to, routine welding, spiking, anchoring, spot surfacing, and joint bolt replacement.

[67 FR 1906, Jan. 15, 2002]

**§214.105 Fall protection systems standards and practices.**

(a) *General requirements.* All fall protection systems required by this subpart shall conform to the following:

(1) Fall protection systems shall be used only for personal fall protection.

(2) Any fall protection system subjected to impact loading shall be immediately and permanently removed from service unless fully inspected and determined by a competent person to be undamaged and suitable for reuse.

(3) All fall protection system components shall be protected from abrasions, corrosion, or any other form of deterioration.

(4) All fall protection system components shall be inspected prior to each use for wear, damage, corrosion, mildew, and other deterioration. Defective components shall be permanently removed from service.

(5) Prior to use and after any component or system is changed, bridge workers shall be trained in the application limits of the equipment, proper hook-up, anchoring and tie-off techniques, methods of use, and proper methods of equipment inspection and storage.

(6) The railroad or railroad contractor shall provide for prompt rescue of bridge workers in the event of a fall.

(7) Connectors shall have a corrosion-resistant finish, and all surfaces and edges shall be smooth to prevent damage to interfacing parts of the system.

(8) Connectors shall be drop forged, pressed or formed steel, or made of equivalent-strength materials.

(9) Anchorages, including single- and double-head anchors, shall be capable of supporting at least 5,000 pounds per bridge worker attached, or shall be designed, installed, and used under supervision of a qualified person as part of a complete personal fall protection system that maintains a safety factor of at least two.

(b) *Personal fall arrest systems.* All components of a personal fall arrest system shall conform to the following standards:

(1) Lanyards and vertical lifelines that tie off one bridge worker shall have a minimum breaking strength of 5,000 pounds.

(2) Self-retracting lifelines and lanyards that automatically limit free fall distance to two feet or less shall have components capable of sustaining a minimum static tensile load of 3,000 pounds applied to the device with the lifeline or lanyard in the fully extended position.

(3) Self-retracting lifelines and lanyards that do not limit free fall distance to two feet or less, ripstitch, and tearing and deformed lanyards shall be capable of withstanding 5,000 pounds applied to the device with the lifeline or lanyard in the fully extended position.

(4) Horizontal lifelines shall be designed, installed, and used under the supervision of a competent person, as part of a complete personal fall arrest system that maintains a safety factor of at least two.

(5) Lifelines shall not be made of natural fiber rope.

(6) Body belts shall not be used as components of personal fall arrest systems.

(7) The personal fall arrest system shall limit the maximum arresting force on a bridge worker to 1,800 pounds when used with a body harness.

(8) The personal fall arrest system shall bring a bridge worker to a complete stop and limit maximum deceleration distance a bridge worker travels to 3.5 feet.

(9) The personal fall arrest system shall have sufficient strength to withstand twice the potential impact energy of a bridge worker free falling a distance of six feet, or the free fall distance permitted by the system, whichever is less.

(10) The personal fall arrest system shall be arranged so that a bridge worker cannot free fall more than six feet and cannot contact the ground or any lower horizontal surface of the bridge.

(11) Personal fall arrest systems shall be worn with the attachment point of the body harness located in the center of the wearer's back near shoulder level, or above the wearer's head.

(12) When vertical lifelines are used, each bridge worker shall be provided with a separate lifeline.

(13) Devices used to connect to a horizontal lifeline that may become a vertical lifeline shall be capable of locking in either direction.

(14) Dee-rings and snap-hooks shall be capable of sustaining a minimum tensile load of 3,600 pounds without cracking, breaking, or taking permanent deformation.

(15) Dee-rings and snap-hooks shall be capable of sustaining a minimum tensile load of 5,000 pounds.

(16) Snap-hooks shall not be connected to each other.

(17) Snap-hooks shall be dimensionally compatible with the member to which they are connected to prevent unintentional disengagement, or shall be a locking snap-hook designed to prevent unintentional disengagement.

(18) Unless of a locking type, snap-hooks shall not be engaged:

(i) Directly, next to a webbing, rope, or wire rope;

(ii) To each other;

(iii) To a dee-ring to which another snap-hook or other connector is attached;

(iv) To a horizontal lifeline; or

(v) To any object that is incompatibly shaped or dimensioned in relation to the snap-hook so that unintentional disengagement could occur.

(c) *Safety net systems.* Use of safety net systems shall conform to the following standards and practices:

(1) Safety nets shall be installed as close as practicable under the walking/working surface on which bridge workers are working, but shall not be installed more than 30 feet below such surface.

(2) If the distance from the working surface to the net exceeds 30 feet, bridge workers shall be protected by personal fall arrest systems.

(3) The safety net shall be installed such that any fall from the working surface to the net is unobstructed.

(4) Except as provided in this section, safety nets and net installations shall be drop-tested at the jobsite after initial installation and before being used as a fall protection system, whenever relocated, after major repair, and at six-month intervals if left in one place. The drop-test shall consist of a 400-pound bag of sand 30 inches, plus or minus two inches, in diameter dropped into the net from the highest (but not less than 3½ feet) working surface on which bridge workers are to be protected.

(i) When the railroad or railroad contractor demonstrates that a drop-test is not feasible and, as a result, the test

## §214.107

is not performed, the railroad or railroad contractor, or designated competent person, shall certify that the net and its installation are in compliance with the provisions of this section by preparing a certification record prior to use of the net.

(ii) The certification shall include an identification of the net, the date it was determined that the net was in compliance with this section, and the signature of the person making this determination. Such person's signature shall certify that the net and its installation are in compliance with this section. The most recent certification for each net installation shall be available at the jobsite where the subject net is located.

(5) Safety nets and their installations shall be capable of absorbing an impact force equal to that produced by the drop test specified in this section.

(6) The safety net shall be installed such that there is no contact with surfaces or structures below the net when subjected to an impact force equal to the drop test specified in this section.

(7) Safety nets shall extend outward from the outermost projection of the work surface as follows:

(i) When the vertical distance from the working level to the horizontal plane of the net is 5 feet or less, the minimum required horizontal distance of the outer edge of the net beyond the edge of the working surface is 8 feet.

(ii) When the vertical distance from the working level to the horizontal plane of the net is 5 feet, but less than 10 feet, the minimum required horizontal distance of the outer edge of the net beyond the edge of the working surface is 10 feet.

(iii) When the vertical distance from the working level to the horizontal plane of the net is more than 10 feet, the minimum required horizontal distance of the outer edge of the net beyond the edge of the working surface is 13 feet.

(8) Defective nets shall not be used. Safety nets shall be inspected at least once a week for mildew, wear, damage, and other deterioration. Defective components shall be removed permanently from service.

## 49 CFR Ch. II (10-1-11 Edition)

(9) Safety nets shall be inspected after any occurrence that could affect the integrity of the safety net system.

(10) Tools, scraps, or other materials that have fallen into the safety net shall be removed as soon as possible, and at least before the next work shift.

(11) Each safety net shall have a border rope for webbing with a minimum breaking strength of 5,000 pounds.

(12) The maximum size of each safety net mesh opening shall not exceed 36 square inches and shall not be longer than 6 inches on any side measured center-to-center of mesh ropes or webbing. All mesh crossing shall be secured to prevent enlargement of the mesh opening.

(13) Connections between safety net panels shall be as strong as integral net components and shall be spaced not more than 6 inches apart.

[67 FR 1906, Jan. 15, 2002; 67 FR 11055, Mar. 12, 2002]

### §214.107 Working over or adjacent to water.

(a) Bridge workers working over or adjacent to water with a depth of four feet or more, or where the danger of drowning exists, shall be provided and shall use life vests or buoyant work vests in compliance with U.S. Coast Guard requirements in 46 CFR 160.047, 160.052, and 160.053. Life preservers in compliance with U.S. Coast Guard requirements in 46 CFR 160.055 shall also be within ready access. This section shall not apply to bridge workers using personal fall arrest systems or safety nets that comply with this subpart or to bridge workers who are working under the provisions of §214.103(b)(2), (c) or (d) of this subpart.

(b) Prior to each use, all flotation devices shall be inspected for defects that reduce their strength or buoyancy by designated individuals trained by the railroad or railroad contractor. Defective units shall not be used.

(c) Where life vests are required by paragraph (a) of this section, ring buoys with at least 90 feet of line shall be provided and readily available for emergency rescue operations. Distance between ring buoys shall not exceed 200 feet.

(d) Where life vests are required, at least one lifesaving skiff, inflatable

boat, or equivalent device shall be immediately available. If it is determined by a competent person that environmental conditions, including weather, water speed, and terrain, merit additional protection, the skiff or boat shall be manned.

[70 FR 7050, Feb. 10, 2005]

**§ 214.109 Scaffolding.**

(a) Scaffolding used in connection with railroad bridge maintenance, inspection, testing, and construction shall be constructed and maintained in a safe condition and meet the following minimum requirements:

(1) Each scaffold and scaffold component, except suspension ropes and guardrail systems, but including footings and anchorage, shall be capable of supporting, without failure, its own weight and at least four times the maximum intended load applied or transmitted to that scaffold or scaffold component.

(2) Guardrail systems shall be capable of withstanding, without failure, a force of at least 200 pounds applied within two inches of the top edge, in any outward or downward direction, at any point along the top edge.

(3) Top edge height of top rails, or equivalent guardrail system member, shall be 42 inches, plus or minus three inches. Supports shall be at intervals not to exceed eight feet. Toeboards shall be a minimum of four inches in height.

(4) Midrails, screens, mesh, intermediate vertical members, solid panels, and equivalent structural members shall be capable of withstanding, without failure, a force of at least 150 pounds applied in any downward or outward direction at any point along the midrail or other member.

(5) Midrails shall be installed at a height midway between the top edge of the guardrail system and the walking/working level.

(b) Scaffolds shall not be altered or moved while they are occupied. This paragraph does not apply to vertical movements of mobile scaffolds that are designed to move vertically while occupied.

(c) An access ladder or equivalent safe access shall be provided.

(d) All exposed surfaces shall be prepared and cleared to prevent injury due to laceration, puncture, tripping, or falling hazard.

(e) All scaffold design, construction, and repair shall be completed by competent individuals trained and knowledgeable about design criteria, intended use, structural limitations, and procedures for proper repair.

(f) Manually propelled mobile ladder stands and scaffolds shall conform to the following:

(1) All manually propelled mobile ladder stands and scaffolds shall be capable of carrying the design load.

(2) All ladder stands, scaffolds, and scaffold components shall be capable of supporting, without failure, displacement, or settlement, its own weight and at least four times the maximum intended load applied or transmitted to that ladder stand, scaffold, or scaffold component.

(3) All exposed surfaces shall be free from sharp edges or burrs.

(4) The maximum work level height shall not exceed four times the minimum or least base dimensions of any mobile ladder stand or scaffold. Where the basic mobile unit does not meet this requirement, suitable outrigger frames shall be employed to achieve this least base dimension, or equivalent provisions shall be made to guy or brace the unit against tipping.

(5) The minimum platform width for any work level shall not be less than 20 inches for mobile scaffolds (towers). Ladder stands shall have a minimum step width of 16 inches. The steps of ladder stands shall be fabricated from slip resistant treads.

(6) Guardrails and midrails shall conform to the requirements listed in paragraph (a) of this section.

(7) A climbing ladder or stairway shall be provided for proper access and egress, and shall be affixed or built into the scaffold and so located that in its use it will not have a tendency to tip the scaffold.

(8) Wheels or casters shall be capable of supporting, without failure, at least four times the maximum intended load applied or transmitted to that component. All scaffold casters shall be provided with a positive wheel and/or

## §214.111

swivel lock to prevent movement. Ladder stands shall have at least two of the four casters and shall be of the swivel type.

### §214.111 Personal protective equipment, generally.

With the exception of foot protection, the railroad or railroad contractor shall provide and the bridge worker shall use appropriate personal protective equipment described in this subpart in all operations where there is exposure to hazardous conditions, or where this subpart indicates the need for using such equipment to reduce the hazards to railroad bridge workers. The railroad or railroad contractor shall require the use of foot protection when the potential for foot injury exists.

[67 FR 1908, Jan. 15, 2002]

### §214.113 Head protection.

(a) Railroad bridge workers working in areas where there is a possible danger of head injury from impact, or from falling or flying objects, or from electrical shock and burns, shall be provided and shall wear protective helmets.

(b) Helmets for the protection of railroad bridge workers against impact and penetration of falling and flying objects, or from high voltage electrical shock and burns shall conform to the national consensus standards for industrial head protection (American National Standards Institute, Z89.1-1986, Protective Headwear for Industrial Workers). This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from the American National Standards Institute, 25 West 43rd Street, New York, NY 10036. Copies may be inspected at the Federal Railroad Administration, Docket Clerk, 1200 New Jersey Avenue, SE., Washington, DC, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: [http://www.archives.gov/federal\\_register/](http://www.archives.gov/federal_register/)

## 49 CFR Ch. II (10-1-11 Edition)

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ibr\_locations.html.*

[67 FR 1908, Jan. 15, 2002, as amended at 74 FR 25172, May 27, 2009]

### §214.115 Foot protection.

(a) The railroad or railroad contractor shall require railroad bridge workers to wear foot protection equipment when potential foot injury may result from impact, falling or flying objects, electrical shock or burns, or other hazardous condition.

(b) Safety-toe footwear for railroad bridge workers shall conform to the national consensus standards for safety-toe footwear (American National Standards Institute, American National Standard Z41-1991, Standard for Personal Protection-Protective Footwear). This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from American National Standards Institute, 25 West 43rd Street, New York, NY 10036. Copies may be inspected at the Federal Railroad Administration, Docket Clerk, 1200 New Jersey Avenue, SE., Washington, DC, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

[67 FR 1908, Jan. 15, 2002, as amended at 74 FR 25172, May 27, 2009]

### §214.117 Eye and face protection.

(a) Railroad bridge workers shall be provided and shall wear eye and face protection equipment when potential eye or face injury may result from physical, chemical, or radiant agents.

(b) Eye and face protection equipment required by this section shall conform to the national consensus standards for occupational and educational eye and face protection (American National Standards Institute, Z87.1-1989, Practice for Occupational and Educational Eye and Face Protection). This incorporation by reference was approved by the Director of the Federal Register in accordance

with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from the American National Standards Institute, 25 West 43rd Street, New York, NY 10036. Copies may be inspected at the Federal Railroad Administration, Docket Clerk, 1200 New Jersey Avenue, SE., Washington, DC, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

(c) Face and eye protection equipment required by this section shall be kept clean and in good repair. Use of equipment with structural or optical defects is prohibited.

(d) Railroad bridge workers whose vision requires the use of corrective lenses, when required by this section to wear eye protection, shall be protected by goggles or spectacles of one of the following types:

(i) Spectacles whose protective lenses provide optical correction the, frame of which includes shielding against objects reaching the wearer's eyes around the lenses;

(ii) Goggles that can be worn over corrective lenses without disturbing the adjustment of the lenses; or

(iii) Goggles that incorporate corrective lenses mounted behind the protective lenses.

[67 FR 1908, Jan. 15, 2002; 67 FR 11055, Mar. 12, 2002, as amended at 74 FR 25172, May 27, 2009]

### Subpart C—Roadway Worker Protection

SOURCE: 61 FR 65976, Dec. 16, 1996, unless otherwise noted.

#### § 214.301 Purpose and scope.

(a) The purpose of this subpart is to prevent accidents and casualties caused by moving railroad cars, locomotives or roadway maintenance machines striking roadway workers or roadway maintenance machines.

(b) This subpart prescribes minimum safety standards for roadway workers. Each railroad and railroad contractor may prescribe additional or more stringent operating rules, safety rules, and

other special instructions that are consistent with this subpart.

(c) This subpart prescribes safety standards related to the movement of roadway maintenance machines where such movements affect the safety of roadway workers. This subpart does not otherwise affect movements of roadway maintenance machines that are conducted under the authority of a train dispatcher, a control operator, or the operating rules of the railroad.

#### § 214.302 Information collection requirements.

(a) The information collection requirements of this part were reviewed by the Office of Management and Budget pursuant to the Paperwork Reduction Act of 1995, Public Law 104-13, § 2, 109 Stat.163 (1995) (codified as revised at 44 U.S.C. §§ 3501-3520), and are assigned OMB control number 2130-0539. FRA may not conduct or sponsor and a respondent is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

(b) The information collection requirements are found in the following sections: §§ 214.303, 214.307, 214.309, 214.311, 214.313, 214.315, 214.319, 214.321, 214.323, 214.325, 214.327, 214.329, 214.331, 214.335, 214.341.

#### § 214.303 Railroad on-track safety programs, generally.

(a) Each railroad to which this part applies shall adopt and implement a program that will afford on-track safety to all roadway workers whose duties are performed on that railroad. Each such program shall provide for the levels of protection specified in this subpart.

(b) Each on-track safety program adopted to comply with this part shall include procedures to be used by each railroad for monitoring effectiveness of and compliance with the program.

#### § 214.305 Compliance dates.

Each program adopted by a railroad shall comply not later than the date specified in the following schedule:

(a) For each Class I railroad (including National Railroad Passenger Corporation) and each railroad providing

## § 214.307

commuter service in a metropolitan or suburban area, March 15, 1997.

(b) For each Class II railroad, April 15, 1997.

(c) For each Class III railroad, switching and terminal railroad, and any railroad not otherwise classified, May 15, 1997.

(d) For each railroad commencing operations after the pertinent date specified in this section, the date on which operations commence.

### **§ 214.307 Review and approval of individual on-track safety programs by FRA.**

(a) Each railroad shall notify, in writing, the Associate Administrator for Safety, Federal Railroad Administration, RRS-15, 1200 New Jersey Avenue, SE., Washington, DC 20590, not less than one month before its on-track safety program becomes effective. The notification shall include the effective date of the program, the address of the office at which the program documents are available for review and photocopying by representatives of the Federal Railroad Administrator, and the name, title, address and telephone number of the primary person to be contacted with regard to review of the program. This notification procedure shall also apply to subsequent changes to a railroad's on-track safety program.

(b) After receipt of the notification from the railroad, the Federal Railroad Administration will conduct a formal review of the on-track safety program. The Federal Railroad Administration will notify the primary railroad contact person of the results of the review, in writing, whether the on-track safety program or changes to the program have been approved by the Administrator, and if not approved, the specific points in which the program or changes are deficient.

(c) A railroad's on-track safety program will take effect by the established compliance dates in § 214.305, without regard to the date of review or approval by the Federal Railroad Administration. Changes to a railroad's program will take effect on dates established by each railroad without regard to the date of review and approval

## 49 CFR Ch. II (10-1-11 Edition)

by the Federal Railroad Administration.

[61 FR 65976, Dec. 16, 1996, as amended at 74 FR 25172, May 27, 2009]

### **§ 214.309 On-track safety program documents.**

Rules and operating procedures governing track occupancy and protection shall be maintained together in one manual and be readily available to all roadway workers. Each roadway worker responsible for the on-track safety of others, and each lone worker, shall be provided with and shall maintain a copy of the program document.

### **§ 214.311 Responsibility of employers.**

(a) Each employer is responsible for the understanding and compliance by its employees with its rules and the requirements of this part.

(b) Each employer shall guarantee each employee the absolute right to challenge in good faith whether the on-track safety procedures to be applied at the job location comply with the rules of the operating railroad, and to remain clear of the track until the challenge is resolved.

(c) Each employer shall have in place a written procedure to achieve prompt and equitable resolution of challenges made in accordance with §§ 214.311(b) and 214.313(d).

### **§ 214.313 Responsibility of individual roadway workers.**

(a) Each roadway worker is responsible for following the on-track safety rules of the railroad upon which the roadway worker is located.

(b) A roadway worker shall not foul a track except when necessary for the performance of duty.

(c) Each roadway worker is responsible to ascertain that on-track safety is being provided before fouling a track.

(d) Each roadway worker may refuse any directive to violate an on-track safety rule, and shall inform the employer in accordance with § 214.311 whenever the roadway worker makes a good faith determination that on-track safety provisions to be applied at the job location do not comply with the rules of the operating railroad.

**§ 214.315 Supervision and communication.**

(a) When an employer assigns duties to a roadway worker that call for that employee to foul a track, the employer shall provide the employee with a job briefing that includes information on the means by which on-track safety is to be provided, and instruction on the on-track safety procedures to be followed.

(b) A job briefing for on-track safety shall be deemed complete only after the roadway worker has acknowledged understanding of the on-track safety procedures and instructions presented.

(c) Every roadway work group whose duties require fouling a track shall have one roadway worker designated by the employer to provide on-track safety for all members of the group. The designated person shall be qualified under the rules of the railroad that conducts train operations on those tracks to provide the protection necessary for on-track safety of each individual in the group. The responsible person may be designated generally, or specifically for a particular work situation.

(d) Before any member of a roadway work group fouls a track, the designated person providing on-track safety for the group under paragraph (c) of this section shall inform each roadway worker of the on-track safety procedures to be used and followed during the performance of the work at that time and location. Each roadway worker shall again be so informed at any time the on-track safety procedures change during the work period. Such information shall be given to all roadway workers affected before the change is effective, except in cases of emergency. Any roadway workers who, because of an emergency, cannot be notified in advance shall be immediately warned to leave the fouling space and shall not return to the fouling space until on-track safety is re-established.

(e) Each lone worker shall communicate at the beginning of each duty period with a supervisor or another designated employee to receive a job briefing and to advise of his or her planned itinerary and the procedures that he or she intends to use for on-track safety. When communication

channels are disabled, the job briefing shall be conducted as soon as possible after the beginning of the work period when communications are restored.

**§ 214.317 On-track safety procedures, generally.**

Each employer subject to the provisions of this part shall provide on-track safety for roadway workers by adopting a program that contains specific rules for protecting roadway workers that comply with the provisions of §§ 214.319 through 214.337 of this part.

**§ 214.319 Working limits, generally.**

Working limits established on controlled track shall conform to the provisions of § 214.321 Exclusive track occupancy, or § 214.323 Foul time, or § 214.325 Train coordination. Working limits established on non-controlled track shall conform to the provision of § 214.327 Inaccessible track. Working limits established under any procedure shall, in addition, conform to the following provisions:

(a) Only a roadway worker who is qualified in accordance with § 214.353 of this part shall establish or have control over working limits for the purpose of establishing on-track safety.

(b) Only one roadway worker shall have control over working limits on any one segment of track.

(c) All affected roadway workers shall be notified before working limits are released for the operation of trains. Working limits shall not be released until all affected roadway workers have either left the track or have been afforded on-track safety through train approach warning in accordance with § 214.329 of this subpart.

**§ 214.321 Exclusive track occupancy.**

Working limits established on controlled track through the use of exclusive track occupancy procedures shall comply with the following requirements:

(a) The track within working limits shall be placed under the control of one roadway worker by either:

(1) Authority issued to the roadway worker in charge by the train dispatcher or control operator who controls train movements on that track,

### § 214.323

(2) Flagmen stationed at each entrance to the track within working limits and instructed by the roadway worker in charge to permit the movement of trains and equipment into the working limits only as permitted by the roadway worker in charge, or

(3) The roadway worker in charge causing fixed signals at each entrance to the working limits to display an aspect indicating "Stop."

(b) An authority for exclusive track occupancy given to the roadway worker in charge of the working limits shall be transmitted on a written or printed document directly, by relay through a designated employee, in a data transmission, or by oral communication, to the roadway worker by the train dispatcher or control operator in charge of the track.

(1) Where authority for exclusive track occupancy is transmitted orally, the authority shall be written as received by the roadway worker in charge and repeated to the issuing employee for verification.

(2) The roadway worker in charge of the working limits shall maintain possession of the written or printed authority for exclusive track occupancy while the authority for the working limits is in effect.

(3) The train dispatcher or control operator in charge of the track shall make a written or electronic record of all authorities issued to establish exclusive track occupancy.

(c) The extent of working limits established through exclusive track occupancy shall be defined by one of the following physical features clearly identifiable to a locomotive engineer or other person operating a train or railroad equipment:

(1) A flagman with instructions and capability to hold all trains and equipment clear of the working limits;

(2) A fixed signal that displays an aspect indicating "Stop";

(3) A station shown in the time-table, and identified by name with a sign, beyond which train movement is prohibited by train movement authority or the provisions of a direct train control system.

(4) A clearly identifiable milepost sign beyond which train movement is prohibited by train movement author-

### 49 CFR Ch. II (10-1-11 Edition)

ity or the provisions of a direct train control system; or

(5) A clearly identifiable physical location prescribed by the operating rules of the railroad that trains may not pass without proper authority.

(d) Movements of trains and roadway maintenance machines within working limits established through exclusive track occupancy shall be made only under the direction of the roadway worker having control over the working limits. Such movements shall be restricted speed unless a higher speed has been specifically authorized by the roadway worker in charge of the working limits.

### § 214.323 Foul time.

Working limits established on controlled track through the use of foul time procedures shall comply with the following requirements:

(a) Foul time may be given orally or in writing by the train dispatcher or control operator only after that employee has withheld the authority of all trains to move into or within the working limits during the foul time period.

(b) Each roadway worker to whom foul time is transmitted orally shall repeat the track number, track limits and time limits of the foul time to the issuing employee for verification before the foul time becomes effective.

(c) The train dispatcher or control operator shall not permit the movement of trains or other on-track equipment onto the working limits protected by foul time until the roadway worker who obtained the foul time has reported clear of the track.

### § 214.325 Train coordination.

Working limits established by a roadway worker through the use of train coordination shall comply with the following requirements:

(a) Working limits established by train coordination shall be within the segments of track or tracks upon which only one train holds exclusive authority to move.

(b) The roadway worker who establishes working limits by train coordination shall communicate with a member of the crew of the train holding the

exclusive authority to move, and shall determine that:

(1) The train is visible to the roadway worker who is establishing the working limits,

(2) The train is stopped,

(3) Further movements of the train will be made only as permitted by the roadway worker in charge of the working limits while the working limits remain in effect, and

(4) The crew of the train will not give up its exclusive authority to move until the working limits have been released to the train crew by the roadway worker in charge of the working limits.

**§ 214.327 Inaccessible track.**

(a) Working limits on non-controlled track shall be established by rendering the track within working limits physically inaccessible to trains at each possible point of entry by one of the following features:

(1) A flagman with instructions and capability to hold all trains and equipment clear of the working limits;

(2) A switch or derail aligned to prevent access to the working limits and secured with an effective securing device by the roadway worker in charge of the working limits;

(3) A discontinuity in the rail that precludes passage of trains or engines into the working limits;

(4) Working limits on controlled track that connects directly with the inaccessible track, established by the roadway worker in charge of the working limits on the inaccessible track; or

(5) A remotely controlled switch aligned to prevent access to the working limits and secured by the control operator of such remotely controlled switch by application of a locking or blocking device to the control of that switch, when:

(i) The control operator has secured the remotely controlled switch by applying a locking or blocking device to the control of the switch, and

(ii) The control operator has notified the roadway worker who has established the working limits that the requested protection has been provided, and

(iii) The control operator is not permitted to remove the locking or block-

ing device from the control of the switch until receiving permission to do so from the roadway worker who established the working limits.

(b) Trains and roadway maintenance machines within working limits established by means of inaccessible track shall move only under the direction of the roadway worker in charge of the working limits, and shall move at restricted speed.

(c) No operable locomotives or other items of on-track equipment, except those present or moving under the direction of the roadway worker in charge of the working limits, shall be located within working limits established by means of inaccessible track.

**§ 214.329 Train approach warning provided by watchmen/lookouts.**

Roadway workers in a roadway work group who foul any track outside of working limits shall be given warning of approaching trains by one or more watchmen/lookouts in accordance with the following provisions:

(a) Train approach warning shall be given in sufficient time to enable each roadway worker to move to and occupy a previously arranged place of safety not less than 15 seconds before a train moving at the maximum speed authorized on that track can pass the location of the roadway worker.

(b) Watchmen/lookouts assigned to provide train approach warning shall devote full attention to detecting the approach of trains and communicating a warning thereof, and shall not be assigned any other duties while functioning as watchmen/lookouts.

(c) The means used by a watchman/lookout to communicate a train approach warning shall be distinctive and shall clearly signify to all recipients of the warning that a train or other on-track equipment is approaching.

(d) Every roadway worker who depends upon train approach warning for on-track safety shall maintain a position that will enable him or her to receive a train approach warning communicated by a watchman/lookout at any time while on-track safety is provided by train approach warning.

(e) Watchmen/lookouts shall communicate train approach warnings by a means that does not require a warned

## §214.331

employee to be looking in any particular direction at the time of the warning, and that can be detected by the warned employee regardless of noise or distraction of work.

(f) Every roadway worker who is assigned the duties of a watchman/lookout shall first be trained, qualified and designated in writing by the employer to do so in accordance with the provisions of §214.349.

(g) Every watchman/lookout shall be provided by the employer with the equipment necessary for compliance with the on-track safety duties which the watchman/lookout will perform.

### §214.331 Definite train location.

A roadway worker may establish on-track safety by using definite train location only where permitted by and in accordance with the following provisions:

(a) A Class I railroad or a commuter railroad may only use definite train location to establish on-track safety at points where such procedures were in use on January 15, 1997.

(b) Each Class I or commuter railroad shall include in its on-track safety program for approval by FRA in accordance with §214.307 of this part a schedule for phase-out of the use of definite train location to establish on-track safety.

(c) A railroad other than a Class I or commuter railroad may use definite train location to establish on-track safety on subdivisions only where:

(1) Such procedures were in use on January 15, 1997, or

(2) The number of trains operated on the subdivision does not exceed:

(i) Three during any nine-hour period in which roadway workers are on duty, and

(ii) Four during any twelve-hour period in which roadway workers are on duty.

(d) Definite train location shall only be used to establish on-track safety according to the following provisions:

(1) Definite train location information shall be issued only by the one train dispatcher who is designated to authorize train movements over the track for which the information is provided.

## 49 CFR Ch. II (10-1-11 Edition)

(2) A definite train location list shall indicate all trains to be operated on the track for which the list is provided, during the time for which the list is effective.

(3) Trains not shown on the definite train location list shall not be operated on the track for which the list is provided, during the time for which the list is effective, until each roadway worker to whom the list has been issued has been notified of the train movement, has acknowledged the notification to the train dispatcher, and has canceled the list. A list thus canceled shall then be invalid for on-track safety.

(4) Definite train location shall not be used to establish on-track safety within the limits of a manual interlocking, or on track over which train movements are governed by a Traffic Control System or by a Manual Block System.

(5) Roadway workers using definite train location for on-track safety shall not foul a track within ten minutes before the earliest time that a train is due to depart the last station at which time is shown in approach to the roadway worker's location nor until that train has passed the location of the roadway worker.

(6) A railroad shall not permit a train to depart a location designated in a definite train location list before the time shown therein.

(7) Each roadway worker who uses definite train location to establish on-track safety must be qualified on the relevant physical characteristics of the territory for which the train location information is provided.

### §214.333 Informational line-ups of trains.

(a) A railroad is permitted to include informational line-ups of trains in its on-track safety program for use only on subdivisions of that railroad upon which such procedure was in effect on March 14, 1996.

(b) Each procedure for the use of informational line-ups of trains found in an on-track safety program shall include all provisions necessary to protect roadway workers using the procedure against being struck by trains or other on-track equipment.

(c) Each on-track safety program that provides for the use of informational line-ups shall include a schedule for discontinuance of the procedure by a definite date.

**§ 214.335 On-track safety procedures for roadway work groups.**

(a) No employer subject to the provisions of this part shall require or permit a roadway worker who is a member of a roadway work group to foul a track unless on-track safety is provided by either working limits, train approach warning, or definite train location in accordance with the applicable provisions of §§ 214.319, 214.321, 213.323, 214.325, 214.327, 214.329 and 214.331 of this part.

(b) No roadway worker who is a member of a roadway work group shall foul a track without having been informed by the roadway worker responsible for the on-track safety of the roadway work group that on-track safety is provided.

(c) Roadway work groups engaged in large-scale maintenance or construction shall be provided with train approach warning in accordance with § 214.327 for movements on adjacent tracks that are not included within working limits.

**§ 214.337 On-track safety procedures for lone workers.**

(a) A lone worker who fouls a track while performing routine inspection or minor correction may use individual train detection to establish on-track safety only where permitted by this section and the on-track safety program of the railroad.

(b) A lone worker retains an absolute right to use on-track safety procedures other than individual train detection if he or she deems it necessary, and to occupy a place of safety until such other form of on-track safety can be established.

(c) Individual train detection may be used to establish on-track safety only:

(1) By a lone worker who has been trained, qualified, and designated to do so by the employer in accordance with § 214.347 of this subpart;

(2) While performing routine inspection and minor correction work;

(3) On track outside the limits of a manual interlocking, a controlled point, or a remotely controlled hump yard facility;

(4) Where the lone worker is able to visually detect the approach of a train moving at the maximum speed authorized on that track, and move to a previously determined place of safety, not less than 15 seconds before the train would arrive at the location of the lone worker;

(5) Where no power-operated tools or roadway maintenance machines are in use within the hearing of the lone worker; and

(6) Where the ability of the lone worker to hear and see approaching trains and other on-track equipment is not impaired by background noise, lights, precipitation, fog, passing trains, or any other physical conditions.

(d) The place of safety to be occupied by a lone worker upon the approach of a train may not be on a track, unless working limits are established on that track.

(e) A lone worker using individual train detection for on-track safety while fouling a track may not occupy a position or engage in any activity that would interfere with that worker's ability to maintain a vigilant lookout for, and detect the approach of, a train moving in either direction as prescribed in this section.

(f) A lone worker who uses individual train detection to establish on-track safety shall first complete a written Statement of On-track Safety. The Statement shall designate the limits of the track for which it is prepared and the date and time for which it is valid. The statement shall show the maximum authorized speed of trains within the limits for which it is prepared, and the sight distance that provides the required warning of approaching trains. The lone worker using individual train detection to establish on-track safety shall produce the Statement of On-track Safety when requested by a representative of the Federal Railroad Administrator.

**§ 214.339 Audible warning from trains.**

Each railroad shall require that the locomotive whistle be sounded, and the

## §214.341

locomotive bell be rung, by trains approaching roadway workers on or about the track. Such audible warning shall not substitute for on-track safety procedures prescribed in this part.

### §214.341 Roadway maintenance machines.

(a) Each employer shall include in its on-track safety program specific provisions for the safety of roadway workers who operate or work near roadway maintenance machines. Those provisions shall address:

(1) Training and qualification of operators of roadway maintenance machines.

(2) Establishment and issuance of safety procedures both for general application and for specific types of machines.

(3) Communication between machine operators and roadway workers assigned to work near or on roadway maintenance machines.

(4) Spacing between machines to prevent collisions.

(5) Space between machines and roadway workers to prevent personal injury.

(6) Maximum working and travel speeds for machines dependent upon weather, visibility, and stopping capabilities.

(b) Instructions for the safe operation of each roadway machine shall be provided and maintained with each machine large enough to carry the instruction document.

(1) No roadway worker shall operate a roadway maintenance machine without having been trained in accordance with §214.355.

(2) No roadway worker shall operate a roadway maintenance machine without having complete knowledge of the safety instructions applicable to that machine.

(3) No employer shall assign roadway workers to work near roadway machines unless the roadway worker has been informed of the safety procedures applicable to persons working near the roadway machines and has acknowledged full understanding.

(c) Components of roadway maintenance machines shall be kept clear of trains passing on adjacent tracks. Where operating conditions permit

## 49 CFR Ch. II (10-1-11 Edition)

roadway maintenance machines to be less than four feet from the rail of an adjacent track, the on-track safety program of the railroad shall include the procedural instructions necessary to provide adequate clearance between the machine and passing trains.

### §214.343 Training and qualification, general.

(a) No employer shall assign an employee to perform the duties of a roadway worker, and no employee shall accept such assignment, unless that employee has received training in the on-track safety procedures associated with the assignment to be performed, and that employee has demonstrated the ability to fulfill the responsibilities for on-track safety that are required of an individual roadway worker performing that assignment.

(b) Each employer shall provide to all roadway workers in its employ initial or recurrent training once every calendar year on the on-track safety rules and procedures that they are required to follow.

(c) Railroad employees other than roadway workers, who are associated with on-track safety procedures, and whose primary duties are concerned with the movement and protection of trains, shall be trained to perform their functions related to on-track safety through the training and qualification procedures prescribed by the operating railroad for the primary position of the employee, including maintenance of records and frequency of training.

(d) Each employer of roadway workers shall maintain written or electronic records of each roadway worker qualification in effect. Each record shall include the name of the employee, the type of qualification made, and the most recent date of qualification. These records shall be kept available for inspection and photocopying by the Federal Railroad Administrator during regular business hours.

### §214.345 Training for all roadway workers.

The training of all roadway workers shall include, as a minimum, the following:

(a) Recognition of railroad tracks and understanding of the space around them within which on-track safety is required.

(b) The functions and responsibilities of various persons involved with on-track safety procedures.

(c) Proper compliance with on-track safety instructions given by persons performing or responsible for on-track safety functions.

(d) Signals given by watchmen/lookouts, and the proper procedures upon receiving a train approach warning from a lookout.

(e) The hazards associated with working on or near railroad tracks, including review of on-track safety rules and procedures.

**§ 214.347 Training and qualification for lone workers.**

Each lone worker shall be trained and qualified by the employer to establish on-track safety in accordance with the requirements of this section, and must be authorized to do so by the railroad that conducts train operations on those tracks.

(a) The training and qualification for lone workers shall include, as a minimum, consideration of the following factors:

(1) Detection of approaching trains and prompt movement to a place of safety upon their approach.

(2) Determination of the distance along the track at which trains must be visible in order to provide the prescribed warning time.

(3) Rules and procedures prescribed by the railroad for individual train detection, establishment of working limits, and definite train location.

(4) On-track safety procedures to be used in the territory on which the employee is to be qualified and permitted to work alone.

(b) Initial and periodic qualification of a lone worker shall be evidenced by demonstrated proficiency.

**§ 214.349 Training and qualification of watchmen/lookouts.**

(a) The training and qualification for roadway workers assigned the duties of watchmen/lookouts shall include, as a minimum, consideration of the following factors:

(1) Detection and recognition of approaching trains.

(2) Effective warning of roadway workers of the approach of trains.

(3) Determination of the distance along the track at which trains must be visible in order to provide the prescribed warning time.

(4) Rules and procedures of the railroad to be used for train approach warning.

(b) Initial and periodic qualification of a watchman/lookout shall be evidenced by demonstrated proficiency.

**§ 214.351 Training and qualification of flagmen.**

(a) The training and qualification for roadway workers assigned the duties of flagmen shall include, as a minimum, the content and application of the operating rules of the railroad pertaining to giving proper stop signals to trains and holding trains clear of working limits.

(b) Initial and periodic qualification of a flagman shall be evidenced by demonstrated proficiency.

**§ 214.353 Training and qualification of roadway workers who provide on-track safety for roadway work groups.**

(a) The training and qualification of roadway workers who provide for the on-track safety of groups of roadway workers through establishment of working limits or the assignment and supervision of watchmen/lookouts or flagmen shall include, as a minimum:

(1) All the on-track safety training and qualification required of the roadway workers to be supervised and protected.

(2) The content and application of the operating rules of the railroad pertaining to the establishment of working limits.

(3) The content and application of the rules of the railroad pertaining to the establishment or train approach warning.

(4) The relevant physical characteristics of the territory of the railroad upon which the roadway worker is qualified.

(b) Initial and periodic qualification of a roadway worker to provide on track safety for groups shall be evidenced by a recorded examination.

**§ 214.355**

**49 CFR Ch. II (10–1–11 Edition)**

**§ 214.355 Training and qualification in on-track safety for operators of roadway maintenance machines.**

(a) The training and qualification of roadway workers who operate roadway maintenance machines shall include, as a minimum:

(1) Procedures to prevent a person from being struck by the machine when the machine is in motion or operation.

(2) Procedures to prevent any part of the machine from being struck by a train or other equipment on another track.

(3) Procedures to provide for stopping the machine short of other machines or obstructions on the track.

(4) Methods to determine safe operating procedures for each machine that the operator is expected to operate.

(b) Initial and periodic qualification of a roadway worker to operate roadway maintenance machines shall be evidenced by demonstrated proficiency.

**Subpart D—On-Track Roadway Maintenance Machines and Hi-Rail Vehicles**

SOURCE: 68 FR 44407, July 28, 2003, unless otherwise noted.

**§ 214.501 Purpose and scope.**

(a) The purpose of this subpart is to prevent accidents and casualties caused by the lawful operation of on-track roadway maintenance machines and hi-rail vehicles.

(b) This subpart prescribes minimum safety standards for on-track roadway maintenance machines and hi-rail vehicles. An employer may prescribe additional or more stringent standards that are consistent with this subpart.

(c) Any working condition that involves the protection of employees engaged in roadway maintenance duties covered by this subpart but is not within the subject matter addressed by this subpart, including employee exposure to noise, shall be governed by the regulations of the U.S. Department of Labor, Occupational Safety and Health Administration.

**§ 214.503 Good-faith challenges; procedures for notification and resolution.**

(a) An employee operating an on-track roadway maintenance machine or hi-rail vehicle shall inform the employer whenever the employee makes a good-faith determination that the machine or vehicle does not comply with FRA regulations or has a condition that inhibits its safe operation.

(b) Any employee charged with operating an on-track roadway maintenance machine or hi-rail vehicle covered by this subpart may refuse to operate the machine or vehicle if the employee makes a good-faith determination that it does not comply with the requirements of this subpart or has a condition that inhibits its safe operation. The employer shall not require the employee to operate the machine or vehicle until the challenge resulting from the good-faith determination is resolved.

(c) Each employer shall have in place and follow written procedures to assure prompt and equitable resolution of challenges resulting from good-faith determinations made in accordance with this section. The procedures shall include specific steps to be taken by the employer to investigate each good-faith challenge, as well as procedures to follow once the employer finds a challenged machine or vehicle does not comply with this subpart or is otherwise unsafe to operate. The procedures shall also include the title and location of the employer's designated official.

**§ 214.505 Required environmental control and protection systems for new on-track roadway maintenance machines with enclosed cabs.**

(a) The following new on-track roadway maintenance machines shall be equipped with enclosed cabs with operative heating systems, operative air conditioning systems, and operative positive pressurized ventilation systems:

- (1) Ballast regulators;
- (2) Tampers;
- (3) Mechanical brooms;
- (4) Rotary scarifiers;
- (5) Undercutters; and

(6) Functional equivalents of any of the machines identified in paragraphs (a)(1) through (a)(5) of this section.

(b) New on-track roadway maintenance machines, and existing on-track roadway maintenance machines specifically designated by the employer, of the types identified in paragraphs (a)(1) through (a)(5) of this section, or functionally equivalent thereto, shall be capable of protecting employees in the cabs of the machines from exposure to air contaminants, in accordance with 29 CFR 1910.1000.

(c) An employer shall maintain a list of new and designated existing on-track roadway maintenance machines of the types identified in paragraphs (a)(1) through (a)(5) of this section, or functionally equivalent thereto. The list shall be kept current and made available to the Federal Railroad Administration and other Federal and State agencies upon request.

(d) An existing roadway maintenance machine of the type identified in paragraphs (a)(1) through (a)(5) of this section, or functionally equivalent thereto, becomes "designated" when the employer adds the machine to the list required in paragraph (c) of this section. The designation is irrevocable, and the designated existing roadway maintenance machine remains subject to paragraph (b) of this section until it is retired or sold.

(e) If the ventilation system on a new on-track roadway maintenance machine or a designated existing on-track roadway maintenance machine of the type identified in paragraphs (a)(1) through (a)(5) of this section, or functionally equivalent thereto, becomes incapable of protecting an employee in the cab of the machine from exposure to air contaminants in accordance with 29 CFR 1910.1000, personal respiratory protective equipment shall be provided for each such employee until the machine is repaired in accordance with § 214.531.

(f) Personal respiratory protective equipment provided under paragraph (e) of this section shall comply with 29 CFR 1910.134.

(g) New on-track roadway maintenance machines with enclosed cabs, other than the types identified in paragraphs (a)(1) through (a)(5) of this sec-

tion or functionally equivalent thereto, shall be equipped with operative heating and ventilation systems.

(h) When new on-track roadway maintenance machines require operation from non-enclosed stations outside of the main cab, the non-enclosed stations shall be equipped, where feasible from an engineering standpoint, with a permanent or temporary roof, canopy, or umbrella designed to provide cover from normal rainfall and midday sun.

**§ 214.507 Required safety equipment for new on-track roadway maintenance machines.**

(a) Each new on-track roadway maintenance machine shall be equipped with:

(1) A seat for each operator, except as provided in paragraph (b) of this section;

(2) A safe and secure position with handholds, handrails, or a secure seat for each roadway worker transported on the machine. Each position shall be protected from moving parts of the machine;

(3) A positive method of securement for turntables, on machines equipped with a turntable, through engagement of pins and hooks that block the descent of turntable devices below the rail head when not in use;

(4) A windshield with safety glass, or other material with similar properties, if the machine is designed with a windshield. Each new on-track roadway maintenance machine designed with a windshield shall also have power windshield wipers or suitable alternatives that provide the machine operator an equivalent level of vision if windshield wipers are incompatible with the windshield material;

(5) A machine braking system capable of effectively controlling the movement of the machine under normal operating conditions;

(6) A first-aid kit that is readily accessible and complies with 29 CFR 1926.50(d)(2); and

(7) An operative and properly charged fire extinguisher of 5 BC rating or higher which is securely mounted and readily accessible to the operator from the operator's work station.

## § 214.509

(b) Each new on-track roadway maintenance machine designed to be operated and transported by the operator in a standing position shall be equipped with handholds and handrails to provide the operator with a safe and secure position.

(c) Each new on-track roadway maintenance machine that weighs more than 32,500 pounds light weight and is operated in excess of 20 mph shall be equipped with a speed indicator that is accurate within  $\pm 5$  mph of the actual speed at speeds of 10 mph and above.

(d) Each new on-track roadway maintenance machine shall have its as-built light weight displayed in a conspicuous location on the machine.

[68 FR 44407, July 28, 2003, as amended at 69 FR 8839, Feb. 26, 2004]

## § 214.509 Required visual illumination and reflective devices for new on-track roadway maintenance machines.

Each new on-track roadway maintenance machine shall be equipped with the following visual illumination and reflective devices:

(a) An illumination device, such as a headlight, capable of illuminating obstructions on the track ahead in the direction of travel for a distance of 300 feet under normal weather and atmospheric conditions;

(b) Work lights, if the machine is operated during the period between one-half hour after sunset and one-half hour before sunrise or in dark areas such as tunnels, unless equivalent lighting is otherwise provided;

(c) An operative 360-degree intermittent warning light or beacon mounted on the roof of the machine. New roadway maintenance machines that are not equipped with fixed roofs and have a light weight less than 17,500 pounds are exempt from this requirement;

(d) A brake light activated by the application of the machine braking system, and designed to be visible for a distance of 300 feet under normal weather and atmospheric conditions; and

(e) Rearward viewing devices, such as rearview mirrors.

## 49 CFR Ch. II (10–1–11 Edition)

### § 214.511 Required audible warning devices for new on-track roadway maintenance machines.

Each new on-track roadway maintenance machine shall be equipped with:

(a) A horn or other audible warning device that produces a sound loud enough to be heard by roadway workers and other machine operators within the immediate work area. The triggering mechanism for the device shall be clearly identifiable and within easy reach of the machine operator; and

(b) An automatic change-of-direction alarm which provides an audible signal that is at least three seconds long and is distinguishable from the surrounding noise. Change of direction alarms may be interrupted by the machine operator when operating the machine in the work mode if the function of the machine would result in a constant, or almost constant, sounding of the device. In any action brought by FRA to enforce the change-of-direction alarm requirement, the employer shall have the burden of proving that use of the change-of-direction alarm in a particular work function would cause a constant, or almost constant, sounding of the device.

### § 214.513 Retrofitting of existing on-track roadway maintenance machines; general.

(a) Each existing on-track roadway maintenance machine shall have a safe and secure position with handholds, handrails, or a secure seat or bench position for each roadway worker transported on the machine. Each position shall be protected from moving parts of the machine.

(b) By March 28, 2005, each existing on-track roadway maintenance machine shall be equipped with a permanent or portable horn or other audible warning device that produces a sound loud enough to be heard by roadway workers and other machine operators within the immediate work area. The triggering mechanism for the device shall be clearly identifiable and within easy reach of the machine operator.

(c) By March 28, 2005, each existing on-track roadway maintenance machine shall be equipped with a permanent illumination device or a portable light that is securely placed and not

hand-held. The illumination device or portable light shall be capable of illuminating obstructions on the track ahead for a distance of 300 feet under normal weather and atmospheric conditions when the machine is operated during the period between one-half hour after sunset and one-half hour before sunrise or in dark areas such as tunnels.

[68 FR 44407, July 28, 2003, as amended at 69 FR 8839, Feb. 26, 2004]

**§214.515 Overhead covers for existing on-track roadway maintenance machines.**

(a) For those existing on-track roadway maintenance machines either currently or previously equipped with overhead covers for the operator's position, defective covers shall be repaired, and missing covers shall be reinstalled, by March 28, 2005 and thereafter maintained in accordance with the provisions of §214.531.

(b) For those existing on-track roadway maintenance machines that are not already equipped with overhead covers for the operator's position, the employer shall evaluate the feasibility of providing an overhead cover on such a machine if requested in writing by the operator assigned to operate the machine or by the operator's designated representative. The employer shall provide the operator a written response to each request within 60 days. When the employer finds the addition of an overhead cover is not feasible, the response shall include an explanation of the reasoning used by the employer to reach that conclusion.

(c) For purposes of this section, overhead covers shall provide the operator's position with cover from normal rainfall and midday sun.

**§214.517 Retrofitting of existing on-track roadway maintenance machines manufactured on or after January 1, 1991.**

In addition to meeting the requirements of §214.513, after March 28, 2005 each existing on-track roadway maintenance machine manufactured on or after January 1, 1991, shall have the following:

(a) A change-of-direction alarm or rearview mirror or other rearward

viewing device, if either device is feasible, given the machine's design, and if either device adds operational safety value, given the machine's function. In any action brought by FRA to enforce this requirement, the employer shall have the burden of proving that neither device is feasible or adds operational safety value, or both, given the machine's design or work function.

(b) An operative heater, when the machine is operated at an ambient temperature less than 50 degrees Fahrenheit and is equipped with, or has been equipped with, a heater installed by the manufacturer or the railroad.

(c) The light weight of the machine stenciled or otherwise clearly displayed on the machine, if the light weight is known.

(d) Reflective material, or a reflective device, or operable brake lights.

(e) Safety glass when its glass is normally replaced, except that replacement glass that is specifically intended for on-track roadway maintenance machines and is in the employer's inventory as of September 26, 2003 may be utilized until exhausted.

(f) A turntable restraint device, on machines equipped with a turntable, to prevent undesired lowering, or a warning light indicating that the turntable is not in the normal travel position.

[68 FR 44407, July 28, 2003, as amended at 69 FR 8839, Feb. 26, 2004]

**§214.518 Safe and secure positions for riders.**

On or after March 1, 2004, a roadway worker, other than the machine operator, is prohibited from riding on any on-track roadway maintenance machine unless a safe and secure position for each roadway worker on the machine is clearly identified by stenciling, marking, or other written notice.

[69 FR 8839, Feb. 26, 2004]

**§214.519 Floors, decks, stairs, and ladders of on-track roadway maintenance machines.**

Floors, decks, stairs, and ladders of on-track roadway maintenance machines shall be of appropriate design and maintained to provide secure access and footing, and shall be free of oil, grease, or any obstruction which

## § 214.521

creates a slipping, falling, or fire hazard.

### **§ 214.521 Flagging equipment for on-track roadway maintenance machines and hi-rail vehicles.**

Each on-track roadway maintenance machine and hi-rail vehicle shall have on board a flagging kit that complies with the operating rules of the railroad if:

(a) The equipment is operated over trackage subject to a railroad operating rule requiring flagging; and

(b)(1) The equipment is not part of a roadway work group; or

(2) The equipment is the lead or trailing piece of equipment in a roadway work group operating under the same occupancy authority.

[69 FR 8839, Feb. 26, 2004]

### **§ 214.523 Hi-rail vehicles.**

(a) The hi-rail gear of all hi-rail vehicles shall be inspected for safety at least annually and with no more than 14 months between inspections. Tram, wheel wear, and gage shall be measured and, if necessary, adjusted to allow the vehicle to be safely operated.

(b) Each employer shall keep records pertaining to compliance with paragraph (a) of this section. Records may be kept on forms provided by the employer or by electronic means. The employer shall retain the record of each inspection until the next required inspection is performed. The records shall be made available for inspection and copying during normal business hours by representatives of FRA and States participating under part 212 of this chapter. The records may be kept on the hi-rail vehicle or at a location designated by the employer.

(c) A new hi-rail vehicle shall be equipped with:

(1) An automatic change-of-direction alarm or backup alarm that provides an audible signal at least three seconds long and distinguishable from the surrounding noise; and

(2) An operable 360-degree intermittent warning light or beacon mounted on the outside of the vehicle.

(d)(1) The operator of a hi-rail vehicle shall check the vehicle for compliance with this subpart, prior to using the ve-

## 49 CFR Ch. II (10–1–11 Edition)

hicle at the start of the operator's work shift.

(2) A non-complying condition that cannot be repaired immediately shall be tagged and dated in a manner prescribed by the employer and reported to the designated official.

(3) Non-complying automatic change-of-direction alarms, backup alarms, and 360-degree intermittent warning lights or beacons shall be repaired or replaced as soon as practicable within seven calendar days.

### **§ 214.525 Towing with on-track roadway maintenance machines or hi-rail vehicles.**

(a) When used to tow pushcars or other maintenance-of-way equipment, each on-track roadway maintenance machine or hi-rail vehicle shall be equipped with a towing bar or other coupling device that provides a safe and secure attachment.

(b) An on-track roadway maintenance machine or hi-rail vehicle shall not be used to tow pushcars or other maintenance-of-way equipment if the towing would cause the machine or hi-rail vehicle to exceed the capabilities of its braking system. In determining the limit of the braking system, the employer must consider the track grade (slope), as well as the number and weight of pushcars or other equipment to be towed.

### **§ 214.527 On-track roadway maintenance machines; inspection for compliance and schedule for repairs.**

(a) The operator of an on-track roadway maintenance machine shall check the machine components for compliance with this subpart, prior to using the machine at the start of the operator's work shift.

(b) Any non-complying condition that cannot be repaired immediately shall be tagged and dated in a manner prescribed by the employer and reported to the designated official.

(c) The operation of an on-track roadway maintenance machine with a non-complying condition shall be governed by the following requirements:

(1) An on-track roadway maintenance machine with headlights or work lights

that are not in compliance may be operated for a period not exceeding 7 calendar days and only during the period between one-half hour before sunrise and one-half hour after sunset;

(2) A portable horn may be substituted for a non-complying or missing horn for a period not exceeding seven calendar days;

(3) A fire extinguisher readily available for use may temporarily replace a missing, defective or discharged fire extinguisher on a new on-track roadway maintenance machine for a period not exceeding 7 calendar days, pending the permanent replacement or repair of the missing, defective or used fire extinguisher;

(4) Non-complying automatic change-of-direction alarms, backup alarms, and 360-degree intermittent warning lights or beacons shall be repaired or replaced as soon as practicable within 7 calendar days; and

(5) A structurally defective or missing operator's seat shall be replaced or repaired within 24 hours or by the start of the machine's next tour of duty, whichever is later. The machine may be operated for the remainder of the operator's tour of duty if the defective or missing operator's seat does not prevent its safe operation.

**§ 214.529 In-service failure of primary braking system.**

(a) In the event of a total in-service failure of its primary braking system, an on-track roadway maintenance machine may be operated for the remainder of its tour of duty with the use of a secondary braking system or by coupling to another machine, if such operations may be done safely.

(b) If the total in-service failure of an on-track roadway maintenance machine's primary braking system occurs where other equipment is not available for coupling, the machine may, if it is safe to do so, travel to a clearance or repair point where it shall be placed out of service until repaired.

**§ 214.531 Schedule of repairs; general.**

Except as provided in §§ 214.527(c)(5), 214.529, and 214.533, an on-track roadway maintenance machine or hi-rail vehicle that does not meet all the requirements of this subpart shall be

brought into compliance as soon as practicable within seven calendar days. If repairs are not made within seven calendar days, the on-track roadway maintenance machine or hi-rail vehicle shall be placed out of on-track service.

**§ 214.533 Schedule of repairs subject to availability of parts.**

(a) The employer shall order a part necessary to repair a non-complying condition on an on-track roadway maintenance machine or a hi-rail vehicle by the end of the next business day following the report of the defect.

(b) When the employer cannot repair a non-complying condition as required by § 214.531 because of the temporary unavailability of a necessary part, the employer shall repair the on-track roadway maintenance machine or hi-rail vehicle within seven calendar days after receiving the necessary part. The employer may continue to use the on-track roadway maintenance machine or hi-rail vehicle with a non-complying condition until receiving the necessary part(s) for repair, subject to the requirements of § 214.503. However, if a non-complying condition is not repaired within 30 days following the report of the defect, the employer shall remove the on-track roadway maintenance machine or hi-rail vehicle from on-track service until it is brought into compliance with this subpart.

(c) If the employer fails to order a part necessary to repair the reported non-complying condition, or if it fails to install an available part within the required seven calendar days, the on-track roadway maintenance machine or hi-rail vehicle shall be removed from on-track service until brought into compliance with this subpart.

(d) Each employer shall maintain records pertaining to compliance with this section. Records may be kept on forms provided by the employer or by electronic means. The employer shall retain each record for at least one year, and the records shall be made available for inspection and copying during normal business hours by representatives of FRA and States participating under part 212 of this chapter. The records may be kept on the on-track roadway maintenance machine

or hi-rail vehicle or at a location designated by the employer.

APPENDIX A TO PART 214—SCHEDULE OF CIVIL PENALTIES<sup>1</sup>

Section	Violation	Willful
<b>Subpart B—Bridge Worker Safety Standards</b>		
214.103 Fall protection:		
(i) Failure to provide fall protection .....	\$5,000	\$10,000
(ii) Failure to use fall protection .....		2,500
214.105 Standards and practices:		
(a) General:		
(1) Fall protection used for other purposes .....	2,500	5,000
(2) Failure to remove from service .....	2,500	5,000
(3) Failure to protect from deterioration .....	2,500	5,000
(4) Failure to inspect and remove .....	5,000	10,000
(5) Failure to train .....	5,000	10,000
(6) Failure to provide for prompt rescue .....	5,000	10,000
(7) Failure to prevent damage .....	2,500	5,000
(8) Failure to use proper connectors .....	2,500	5,000
(9) Failure to use proper anchorages .....	2,500	5,000
(b) Fall arrest system:		
(1)–(17) Failure to provide conforming equipment .....	2,500	5,000
(c) Safety net systems:		
(1) Failure to install close to workplace .....	2,500	5,000
(2) Failure to provide fall arrest if over 30 feet .....	5,000	10,000
(3) Failure to provide for unobstructed fall .....	5,000	10,000
(4) Failure to test .....	2,500	5,000
(5) Failure to use proper equipment .....	2,500	5,000
(6) Failure to prevent contact with surface below .....	5,000	10,000
(7) Failure to properly install .....	5,000	10,000
(8) Failure to remove defective nets .....	5,000	10,000
(9) Failure to inspect .....	5,000	10,000
(10) Failure to remove objects .....	1,000	2,500
(11)–(13) Failure to use conforming equipment .....	2,500	10,000
214.107 Working over water:		
(a)(i) Failure to provide life vest .....	5,000	10,000
(ii) Failure to use life vest .....		1,500
(c) Failure to inspect .....	2,500	5,000
(e)(i) Failure to provide ring bouys .....	5,000	10,000
(ii) Failure to use ring bouys .....		1,500
(f)(i) Failure to provide skiff .....	1,000	2,500
(ii) Failure to use skiff .....		1,500
214.109 Scaffolding:		
(a)–(f) Failure to provide conforming equipment .....	2,500	5,000
214.113 Head protection:		
(a)(i) Failure to provide .....	2,500	5,000
(ii) Failure to use .....		1,500
(b) or (c) Failure to provide conforming equipment .....	2,500	5,000
214.115 Foot protection:		
(a)(i) Failure to require use of .....	2,500	5,000
(ii) Failure to use .....		1,500
214.117 Eye and face protection:		
(a)(i) Failure to provide .....	2,500	5,000
(ii) Failure to use .....		1,500
(b) Failure to use conforming equipment .....	2,500	5,000
(c) Use of defective equipment .....	2,500	5,000
(d) Failure to provide for corrective lenses .....	2,500	5,000
<b>Subpart C—Roadway Worker Protection Rule</b>		
214.303 Railroad on-track safety programs, generally:		
(a) Failure of a railroad to implement an On-track Safety Program .....	10,000	20,000
(b) On-track Safety Program of a railroad includes no internal monitoring procedure .....	5,000	10,000
214.305 Compliance Dates:		
Failure of a railroad to comply by the specified dates .....	5,000	10,000
214.307 Review and approval of individual on-track safety programs by FRA:		
(a)(i) Failure to notify FRA of adoption of On-track Safety Program .....	1,000	5,000
(ii) Failure to designate primary person to contact for program review .....	1,000	2,000
214.309 On-track safety program documents:		
(1) On-track Safety Manual not provided to prescribed employees .....	2,000	5,000
(2) On-track Safety Program documents issued in fragments .....	2,000	5,000
214.311 Responsibility of employers:		
(b) Roadway worker required by employer to foul a track during an unresolved challenge .....	5,000	10,000

Section	Violation	Willful
(c) Roadway workers not provided with written procedure to resolve challenges of on-track safety procedures .....	5,000	10,000
214.313 Responsibility of individual roadway workers:		
(b) Roadway worker fouling a track when not necessary in the performance of duty .....		1,000
(c) Roadway worker fouling a track without ascertaining that provision is made for on-track safety .....		1,500
(d) Roadway worker failing to notify employer of determination of improper on-track safety provisions .....		3,000
214.315 Supervision and communication:		
(a) Failure of employer to provide job briefing .....	2,000	10,000
(b) Incomplete job briefing .....	2,000	5,000
(c)(i) Failure to designate roadway worker in charge of roadway work group .....	2,000	5,000
(ii) Designation of more than one roadway worker in charge of one roadway work group ...	1,000	2,000
(iii) Designation of non-qualified roadway worker in charge of roadway work group .....	3,000	6,000
(d)(i) Failure to notify roadway workers of on-track safety procedures in effect .....	3,000	6,000
(ii) Incorrect information provided to roadway workers regarding on-track safety procedures in effect .....	3,000	6,000
(iii) Failure to notify roadway workers of change in on-track safety procedures .....	3,000	6,000
(e)(i) Failure of lone worker to communicate with designated employee for daily job briefing ...		1,500
(ii) Failure of employer to provide means for lone worker to receive daily job briefing .....	3,000	6,000
214.317 On-track safety procedures, generally:		
On-track safety rules conflict with this part .....	5,000	10,000
214.319 Working limits, generally:		
(a) Non-qualified roadway worker in charge of working limits .....	5,000	10,000
(b) More than one roadway worker in charge of working limits on the same track segment .....	2,000	5,000
(c)(1) Working limits released without notifying all affected roadway workers .....	5,000	10,000
(2) Working limits released before all affected roadway workers are otherwise protected ...	5,000	10,000
214.321 Exclusive track occupancy:		
(b) Improper transmission of authority for exclusive track occupancy .....	2,000	5,000
(b)(1) Failure to repeat authority for exclusive track occupancy to issuing employee .....		1,500
(2) Failure to retain possession of written authority for exclusive track occupancy .....		1,000
(3) Failure to record authority for exclusive track occupancy when issued .....		2,000
(c) Limits of exclusive track occupancy not identified by proper physical features .....	2,000	4,000
(d)(1) Movement authorized into limits of exclusive track occupancy without authority of roadway worker in charge .....	5,000	10,000
(2) Movement authorized within limits of exclusive track occupancy without authority of roadway worker in charge .....	5,000	10,000
(3) Movement within limits of exclusive track occupancy exceeding restricted speed without authority of roadway worker in charge .....	5,000	10,000
214.323 Foul time:		
(a) Foul time authority overlapping movement authority of train or equipment .....	5,000	10,000
(b) Failure to repeat foul time authority to issuing employee .....		1,500
214.325 Train coordination:		
(a) Train coordination limits established where more than one train is authorized to operate ....	1,500	4,000
(b)(1) Train coordination established with train not visible to roadway worker at the time .....		1,500
(2) Train coordination established with moving train .....		1,500
(3) Coordinated train moving without authority of roadway worker in charge .....	2,000	5,000
(4) Coordinated train releasing movement authority while working limits are in effect .....	3,000	6,000
214.327 Inaccessible track:		
(a) Improper control of entry to inaccessible track .....	3,000	6,000
(5) Remotely controlled switch not properly secured by control operator .....	3,000	6,000
(b) Train or equipment moving within inaccessible track limits without permission of roadway worker in charge .....	3,000	6,000
(c) Unauthorized train or equipment located within inaccessible track limits .....	2,000	5,000
214.329 Train approach warning provided by watchmen/lookouts:		
(a) Failure to give timely warning of approaching train .....		5,000
(b)(1) Failure of watchman/lookout to give full attention to detecting approach of train .....		3,000
(2) Assignment of other duties to watchman/lookout .....	3,000	5,000
(c) Failure to provide proper warning signal devices .....	2,000	5,000
(d) Failure to maintain position to receive train approach warning signal .....		2,000
(e) Failure to communicate proper warning signal .....	1,500	3,000
(f)(1) Assignment of non-qualified person as watchman/lookout .....	3,000	5,000
(2) Non-qualified person accepting assignment as watchman/lookout .....		1,500
(g) Failure to properly equip a watchman/lookout .....	2,000	4,000
214.331 Definite train location:		
(a) Definite train location established where prohibited .....	3,000	5,000
(b) Failure to phase out definite train location by required date .....	3,000	5,000
(d)(1) Train location information issued by unauthorized person .....	2,000	5,000
(2) Failure to include all trains operated on train location list .....	3,000	5,000
(5) Failure to clear a by ten minutes at the last station at which time is shown .....		2,000
(6) Train passing station before time shown in train location list .....	3,000	5,000
(7) Non-qualified person using definite train location to establish on-track safety .....	2,000	3,000
214.333 Informational line-ups of trains:		
(a) Informational line-ups of trains used for on-track safety where prohibited .....	3,000	5,000

Section	Violation	Willful
(b) Informational line-up procedures inadequate to protect roadway workers .....	5,000	10,000
(c) Failure to discontinue informational line-ups by required date .....	5,000	10,000
214.335 On-track safety procedures for roadway work groups :		
(a) Failure to provide on-track safety for a member of a roadway work group .....	3,000	5,000
(b) Member of roadway work group fouling a track without authority of employee in charge .....	2,000	2,000
(c) Failure to provide train approach warning or working limits on adjacent track where required .....	3,000	5,000
214.337 On-track safety procedures for lone workers:		
(b) Failure by employer to permit individual discretion in use of individual train detection .....	5,000	10,000
(c)(1) Individual train detection used by non-qualified employee .....	2,000	4,000
(2) Use of individual train detection while engaged in heavy or distracting work .....	2,000	2,000
(3) Use of individual train detection in controlled point or manual interlocking .....	2,000	2,000
(4) Use of individual train detection with insufficient visibility .....	2,000	2,000
(5) Use of individual train detection with interfering noise .....	2,000	2,000
(6) Use of individual train detection while a train is passing .....	3,000	3,000
(d) Failure to maintain access to place of safety clear of live tracks .....	2,000	2,000
(e) Lone worker unable to maintain vigilant lookout .....	2,000	2,000
(f)(1) Failure to prepare written statement of on-track safety .....	1,500	1,500
(2) Incomplete written statement of on-track safety .....	1,000	1,000
(3) Failure to produce written statement of on-track safety to FRA .....	1,500	1,500
214.339 Audible warning from trains:		
(a) Failure to require audible warning from trains .....	2,000	4,000
(b) Failure of train to give audible warning where required .....	1,000	3,000
214.341 Roadway maintenance machines:		
(a) Failure of on-track safety program to include provisions for safety near roadway maintenance machines .....	3,000	5,000
(b) Failure to provide operating instructions .....	2,000	4,000
(1) Assignment of non-qualified employee to operate machine .....	2,000	5,000
(2) Operator unfamiliar with safety instructions for machine .....	2,000	5,000
(3) Roadway worker working with unfamiliar machine .....	2,000	5,000
(c) Roadway maintenance machine not clear of passing trains .....	3,000	6,000
214.343 Training and qualification, general:		
(a)(1) Failure of railroad program to include training provisions .....	5,000	10,000
(2) Failure to provide initial training .....	3,000	6,000
(b) Failure to provide annual training .....	2,500	5,000
(c) Assignment of non-qualified railroad employees to provide on-track safety .....	4,000	8,000
(d)(1) Failure to maintain records of qualifications .....	2,000	4,000
(2) Incomplete records of qualifications .....	1,000	3,000
(3) Failure to provide records of qualifications to FRA .....	2,000	4,000
214.345 Training for all roadway workers		
214.347 Training and qualification for lone workers		
214.349 Training and qualification of watchmen/lookouts		
214.351 Training and qualification of flagmen		
214.353 Training and qualification of roadway workers who provide on-track safety for roadway work groups		
214.355 Training and qualification in on-track safety for operators of roadway maintenance machines		
<b>Subpart D—On-Track Roadway Maintenance Machines and Hi-Rail Vehicles</b>		
214.503 Good-faith challenges; procedures for notification and resolution:		
(a) Failure of employee to notify employer that the machine or vehicle does not comply with this subpart or has a condition inhibiting safe operation .....	4,000	4,000
(b) Roadway worker required to operate machine or vehicle when good-faith challenge not resolved .....	5,000	10,000
(c) Failure of employer to have or follow written procedures to resolve good-faith challenges .....	5,000	10,000
214.505 Required environmental control and protection systems for new on-track roadway maintenance machines with enclosed cabs:		
(a) Failure to equip new machines with required systems .....	5,000	10,000
(b) Failure of new or existing machines to protect employees from exposure to air contaminants .....	5,000	10,000
(c) Failure of employer to maintain required list of machines or make list available .....	2,000	4,000
(d) Removal of "designated machine" from list before retired or sold .....	2,000	4,000
(e) Personal respiratory protective equipment not provided when ventilation system fails .....	5,000	10,000
(f) Personal respiratory protective equipment fails to meet required standards .....	5,000	10,000
(g) Other new machines with enclosed cabs not equipped with operable heating and ventilation systems .....	5,000	10,000
(h) Non-enclosed station not equipped with covering, where feasible .....	5,000	10,000
214.507 Required safety equipment for new on-track roadway maintenance machines:		
(a)(1)–(5) Failure to equip new machine or provide protection as specified in these paragraphs .....	5,000	10,000
(a)(6)–(7) Failure to equip new machine with first-aid kit or operative and charged fire extinguisher .....	2,500	5,000
(b) Position for operator to stand not properly equipped to provide safe and secure position .....	5,000	10,000

Section	Violation	Willful
(c) New machine not equipped with accurate speed indicator, as required. ....	2,500	5,000
(d) As-built light weight not conspicuously displayed on new machine .....	2,500	5,000
214.509 Required visual illumination and reflective devices for new on-track roadway maintenance machines .....	2,500	5,000
214.511 Required audible warning devices for new on-track roadway maintenance machines .....	5,000	10,000
214.513 Retrofitting of existing on-track roadway maintenance machines; general:		
(a) Failure to provide safe and secure position and protection from moving parts 2,000 4,000 inside cab for each roadway worker transported on machine .....	5,000	10,000
(b) Horn or other audible warning device is missing, inoperable, or has non-compliant triggering mechanism .....	2,500	5,000
(c) Illumination device or portable light missing, inoperable, improperly secured, or incapable of illuminating track as required .....	2,500	5,000
214.515 Overhead covers for existing on-track roadway maintenance machines:		
(a) Failure to repair, reinstall, or maintain overhead cover as required .....	5,000	10,000
(b) Failure to provide written response to operator's request within 60 days .....	2,000	4,000
214.517 Retrofitting of existing on-track roadway maintenance machines manufactured on or after January 1, 1991:		
(a) Failure to equip machine with change-of-direction alarm or rearward viewing device. ...	5,000	10,000
(b) Failure to equip machine with operative heater .....	5,000	10,000
(c) Failure to display light weight of machine as required .....	2,500	5,000
(d) Failure to equip machine with reflective material, reflective device, or operable brake lights .....	5,000	10,000
(e) Failure to install or replace safety glass as required .....	5,000	10,000
(f) Failure to equip machine with turntable restraint device or warning light as required .....	5,000	10,000
214.518 Safe and secure position for riders .....	5,000	10,000
214.519 Floors, decks, stairs, and ladders for on-track roadway maintenance machines .....	5,000	10,000
214.521 Flagging equipment for on-track roadway maintenance machines and hi-rail vehicles .....	2,500	5,000
214.523 Hi-rail vehicles:		
(a) Failure to inspect hi-rail gear annually .....	5,000	10,000
(b) Failure to maintain inspection record or make record available to FRA .....	2,000	4,000
(c) Failure to equip new hi-rail vehicle with alarm and light or beacon as required .....	2,500	5,000
(d)(2) Failure of operator to tag, date or report non-complying condition .....	2,000	4,000
(d)(3) Failure to repair or replace non-complying alarms, lights or beacons as required .....	2,500	5,000
214.525 Towing with on-track roadway maintenance machines or hi-rail vehicles .....	5,000	10,000
214.527 On-track roadway maintenance machines; inspection for compliance and schedule for repairs:		
(a) Failure of operator to check on-track roadway maintenance machine for compliance ....	2,000	4,000
(b) Failure of operator to tag, date, or report noncomplying condition .....	2,000	4,000
(c)(1)-(4) Failure to meet requirements for operating on-track roadway maintenance machine with non-complying headlights, work lights, horn, fire extinguisher, alarm, warning light, or beacon .....	2,500	5,000
(c)(5) Failure to repair or replace defective or missing operator's seat within required time period .....	5,000	10,000
214.529 In-service failure of primary braking system .....	5,000	10,000
214.531 Schedule of repairs; general .....	2,500	5,000
214.533 Schedule of repairs subject to availability of parts:		
(a)-(c) Failure to order necessary part(s), make repair(s), or remove on-track roadway maintenance machine or hi-rail vehicle from service as required .....	2,500	5,000
(d) Failure to maintain record or make record available to FRA .....	2,000	4,000

<sup>1</sup> A penalty may be assessed against an individual only for a willful violation. The Administrator reserves the right to assess a penalty of up to \$100,000 for any violation where circumstances warrant. See 49 CFR part 209, appendix A.

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**PART 215—RAILROAD FREIGHT CAR SAFETY STANDARDS**

**Subpart A—General**

- Sec.
- 215.1 Scope of part.
- 215.3 Application.
- 215.5 Definitions.
- 215.7 Prohibited acts.
- 215.9 Movement of defective cars for repair.
- 215.11 Designated inspectors.

- 215.13 Pre-departure inspection.
- 215.15 Periodic inspection.

**Subpart B—Freight Car Components**

- 215.101 Scope.
- SUSPENSION SYSTEM
- 215.103 Defective wheel.
- 215.105 Defective axle.
- 215.107 Defective plain bearing box: General.
- 215.109 Defective plain bearing box: Journal lubrication system.