

Section	Violation	Willful violation
227.109 Audiometric testing program:		
(a) Failure to establish and/or maintain an audiometric testing program .....	7,500	10,000
(b) Failure to provide audiometric test at no cost to employee .....	2,500	5,000
(c) Failure to have qualified person perform audiometric test .....	2,500	5,000
(d) [Reserved] .....		
(e) Failure to establish baseline audiogram as required .....	3,500	7,000
(f) Failure to offer and/or require periodic audiograms as required .....	2,500	5,000
(g) Failure to evaluate audiogram as required .....	2,500	5,000
(h) Failure to comply with follow-up procedures as required .....	2,500	5,000
(i) Failure to use required method for revising baseline audiograms .....	2,500	5,000
227.111 Audiometric test requirements:		
(a) Failure to conduct test as required .....	2,500	5,000
(b) Failure to use required equipment .....	2,500	5,000
(c) Failure to administer test in room that meets requirements .....	2,500	5,000
(d) Complete failure to calibrate .....	5,000	7,500
(1) Failure to perform daily calibration as required .....	2,000	4,000
(2) Failure to perform annual calibration as required .....	2,000	4,000
(3) Failure to perform exhaustive calibration as required .....	2,000	4,000
227.115 Hearing protectors (HP):		
(a) Failure to comply with general requirements .....	3,000	6,000
(b) Failure to make HP available as required .....	2,500	5,000
(c) Failure to require use of HP at action level .....	5,000	7,500
(d) Failure to require use of HP at TWA of 90 dB(A) .....	5,000	7,500
227.117 Hearing protector attenuation:		
(a) Failure to evaluate attenuation as required .....	2,500	5,000
(b)–(c) Failure to attenuate to required level .....	2,500	5,000
(d) Failure to re-evaluate attenuation .....	2,500	5,000
227.119 Training program:		
(a) Failure to institute a training program as required .....	5,000	7,500
(b) Failure to provide training within required time frame .....	2,500	5,000
(c) Failure of program and/or training materials to include required information .....	2,500	5,000
227.121 Recordkeeping:		
(a) General Requirements:		
(1) Failure to make record available as required .....	2,500	5,000
(3) Failure to transfer or retain records as required .....	2,000	4,000
(b)–(f) Records:		
(1) Failure to maintain record or failure to maintain record with required information .....	2,000	4,000
(2) Failure to retain records for required time period .....	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 \$105,000 for any violation where circumstances warrant. See 49 CFR part 209, appendix A.

[71 FR 63123, Oct. 27, 2006, as amended at 73 FR 79703, Dec. 30, 2008; 77 FR 24421, Apr. 24, 2012]

**PART 228—HOURS OF SERVICE OF RAILROAD EMPLOYEES; RECORD-KEEPING AND REPORTING; SLEEPING QUARTERS**

**Subpart A—General**

- Sec.
- 228.1 Scope.
- 228.3 Application and responsibility for compliance.
- 228.5 Definitions.
- 228.6 Penalties.

**Subpart B—Records and Reporting**

- 228.7 Hours of duty.
- 228.9 Records; general.
- 228.11 Hours of duty records.
- 228.13 [Reserved]
- 228.17 Dispatcher’s record of train movements.

- 228.19 Monthly reports of excess service.
- 228.21–228.23 [Reserved]

**Subpart C—Construction of Railroad-Provided Sleeping Quarters**

- 228.101 Distance requirement; definitions.
- 228.102 Distance requirement for camp cars provided as sleeping quarters exclusively to MOW workers.
- 228.103 Approval procedure: construction within one-half mile (2,640 feet) (804 meters).
- 228.105 Additional requirements; construction within one-third mile (1,760 feet) (536 meters) of certain switching.
- 228.107 Action on petition.

**Subpart D—Electronic Recordkeeping**

- 228.201 Electronic recordkeeping; general.
- 228.203 Program components.
- 228.205 Access to electronic records.

**§ 228.1**

228.207 Training.

**Subpart E—Safety and Health Requirements for Camp Cars Provided by Railroads as Sleeping Quarters**

- 228.301 Purpose and scope.
- 228.303 Application and responsibility for compliance.
- 228.305 Compliance date.
- 228.307 Definitions.
- 228.309 Structure, emergency egress, lighting, temperature, and noise-level standards.
- 228.311 Minimum space requirements, beds, storage, and sanitary facilities.
- 228.313 Electrical system requirements.
- 228.315 Vermin control.
- 228.317 Toilets.
- 228.319 Lavatories.
- 228.321 Showering facilities.
- 228.323 Potable water.
- 228.325 Food service in a camp car or separate kitchen or dining facility in a camp.
- 228.327 Waste collection and disposal.
- 228.329 Housekeeping.
- 228.331 First aid and life safety.
- 228.333 Remedial action.
- 228.335 Electronic recordkeeping.

**Subpart F—Substantive Hours of Service Requirements for Train Employees Engaged in Commuter or Intercity Rail Passenger Transportation**

- 228.401 Applicability.
- 228.403 Nonapplication, exemption, and definitions.
- 228.405 Limitations on duty hours of train employees engaged in commuter or intercity rail passenger transportation.
- 228.407 Analysis of work schedules; submissions; FRA review and approval of submissions; fatigue mitigation plans.
- 228.409 Requirements for railroad-provided employee sleeping quarters during interim releases and other periods available for rest within a duty tour.
- 228.411 Training.
- 228.413 Compliance date for regulations; exemption from compliance with statute.

APPENDIX A TO PART 228—REQUIREMENTS OF THE HOURS OF SERVICE ACT: STATEMENT OF AGENCY POLICY AND INTERPRETATION

APPENDIX B TO PART 228—SCHEDULE OF CIVIL PENALTIES

APPENDIX C TO PART 228 [RESERVED]

APPENDIX D TO PART 228—GUIDANCE ON FATIGUE MANAGEMENT PLANS

AUTHORITY: 49 U.S.C. 20103, 20107, 21101–21109; Sec. 108, Div. A, Public Law 110–432, 122 Stat. 4860–4866, 4893–4894; 49 U.S.C. 21301, 21303, 21304, 21311; 28 U.S.C. 2461, note; 49 CFR 1.49; and 49 U.S.C. 103.

SOURCE: 37 FR 12234, June 21, 1972, unless otherwise noted.

**49 CFR Ch. II (10–1–12 Edition)**

**Subpart A—General**

**§ 228.1 Scope.**

This part—

- (a) Prescribes reporting and record-keeping requirements with respect to the hours of service of certain railroad employees and certain employees of railroad contractors and subcontractors;
- (b) Establishes standards and procedures concerning the construction or reconstruction of sleeping quarters;
- (c) Establishes minimum safety and health standards for camp cars provided by a railroad as sleeping quarters for its employees and individuals employed to maintain its rights of way; and
- (d) Prescribes substantive hours of service requirements for train employees engaged in commuter or intercity rail passenger transportation.

[43 FR 31012, July 19, 1978, as amended at 74 FR 25345, May 27, 2009; 76 FR 50396, Aug. 12, 2011; 76 FR 67087, Oct. 31, 2011]

**§ 228.3 Application and responsibility for compliance.**

- (a) Except as provided in paragraph (b) of this section, subparts B and D of this part apply to all railroads, all contractors for railroads, and all subcontractors for railroads. Except as provided in paragraph (b) of this section, subparts C and E of this part apply only to all railroads.
- (b) Subparts B through E of this part do not apply to:
  - (1) A railroad, a contractor for a railroad, or a subcontractor for a railroad that operates only on track inside an installation that is not part of the general railroad system of transportation (*i.e.*, a plant railroad as defined in § 228.5);
  - (2) Tourist, scenic, historic, or excursion operations that are not part of the general railroad system of transportation as defined in § 228.5, except as provided in § 228.413(d)(2); or
  - (3) Rapid transit operations in an urban area that are not connected to the general railroad system of transportation.
- (c) The application of subpart F of this part is set forth in § 228.401.

[76 FR 67087, Oct. 31, 2011]

**§ 228.5 Definitions.**

As used in this part—

*Actual time* means either the specific time of day, to the hour and minute, or the precise amount of time spent in an activity, in hours and minutes, that must be included in the hours of duty record, including, where appropriate, reference to the applicable time zone and either standard time or daylight savings time.

*Administrator* means the Administrator of the Federal Railroad Administration or any person to whom the Administrator has delegated authority in the matter concerned.

*Administrative duties* means any activities required by the railroad as a condition of employment, related to reporting, recording, or providing an oral or written statement related to a current, previous, or future duty tour. Such activities are considered service for the railroad, and time spent in these activities must be included in the *total time on duty for any duty tour* with which it may commingle.

*Associate Administrator* means the Associate Administrator for Railroad Safety/Chief Safety Officer, Office of Railroad Safety, Federal Railroad Administration, or any person to whom he or she has delegated authority in the matter concerned.

*At the behest of the employee* refers to time spent by an employee in a railroad-related activity that is not required by the railroad as a condition of employment, in which the employee voluntarily participates.

*At the behest of the railroad* refers to time spent by an employee in a railroad-required activity that compels an employee to perform service for the railroad as a condition of employment.

*Broken (aggregate) service* means one or more periods of time on duty within a single *duty tour* separated by one or more qualifying interim releases.

*Call and release* occurs when an employing railroad issues an employee a *report-for-duty time*, and then releases the employee from the requirement to report prior to the *report-for-duty time*.

*Camp car* means a trailer and/or on-track vehicle, including an outfit, camp, bunk car, or modular home mounted on a flatcar, or any other mobile vehicle or mobile structure used to

house or accommodate an employee or MOW worker. An office car, inspection car, specialized maintenance equipment, or wreck train is not included.

*Carrier, common carrier, and common carrier engaged in interstate or foreign commerce by railroad* mean railroad.

*Commingled service* means—

(1) For a train employee or a signal employee, any non-covered service at the behest of the railroad and performed for the railroad that is not separated from *covered service* by a qualifying statutory off-duty period of 8 or 10 hours or more. Such commingled service is counted as time on duty pursuant to 49 U.S.C. 21103(b)(3) (for train employees) or 49 U.S.C. 21104(b)(2) (for signal employees).

(2) For a dispatching service employee, any non-covered service mandated by the railroad and performed for the railroad within any 24-hour period containing *covered service*. Such commingled service is counted as time on duty pursuant to 49 U.S.C. 21105(c).

*Commuting* means—

(1) For a train employee, the time spent in travel—

(i) Between the employee's residence and the employee's *regular reporting point*, and

(ii) In railroad-provided or authorized transportation to and from the lodging facility at the away-from-home terminal (excluding travel for purposes of an interim release), where such time (including travel delays and room availability) does not exceed 30 minutes.

(2) For a signal employee, the time spent in travel between the employee's residence and the employee's *head-quarters*.

(3) For a dispatching service employee, the time spent in travel between the employee's residence and any reporting point.

*Consecutive service* is a period of unbroken *total time on duty* during a *duty tour*.

*Covered service* means—

(1) For a train employee, the portion of the employee's time on duty during which the employee is engaged in, or connected with, the movement of a train.

(2) For a dispatching service employee, the portion of the employee's

time on duty during which the employee, by the use of an electrical or mechanical device, dispatches, reports, transmits, receives, or delivers an order related to or affecting the movement of a train.

(3) For a signal employee, the portion of the employee's time on duty during which the employee is engaged in installing, repairing, or maintaining a signal system.

*Covered service assignment* means—

(1) For a train employee, each unique assignment of the employee during a period of *covered service* that is associated with either a specific train or a specific yard job.

(2) For a signal employee, the assigned duty hours of the employee, including overtime, or unique trouble call assignments occurring outside the employee's assigned duty hours.

(3) For a dispatching service employee, each unique assignment for the employee that occurs within any 24-hour period in which the employee, by the use of an electrical or mechanical device, dispatches, reports, transmits, receives, or delivers orders related to or affecting train movements.

*Deadheading* means the physical relocation of a train employee from one point to another as a result of a railroad-issued verbal or written directive.

*Designated terminal* means the home or away-from-home terminal for the assignment of a particular train crew.

*Dispatching service employee* means an operator, train dispatcher, or other train employee who by the use of an electrical or mechanical device dispatches, reports, transmits, receives, or delivers orders related to or affecting train movements.

*Duty location* for a signal employee is the employee's *headquarters* or the precise location where the employee is expected to begin performing service for the railroad as defined in 49 U.S.C. 21104(b)(1) and (2).

*Duty tour* means—

(1) The total of all periods of *covered service* and *commingled service* for a train employee or a signal employee occurring between two *statutory off-duty periods* (i.e., off-duty periods of a minimum of 8 or 10 hours); or

(2) The total of all periods of *covered service* and *commingled service* for a dis-

patching service employee occurring in any 24-hour period.

*Employee* means an individual employed by a railroad or a contractor or subcontractor to a railroad who—

(1) Is actually engaged in or connected with the movement of any train, including a person who performs the duties of a hostler;

(2) Dispatches, reports, transmits, receives, or delivers an order pertaining to a train movement by the use of telegraph, telephone, radio, or any other electrical or mechanical device; or

(3) Is engaged in installing, repairing, or maintaining a signal system.

*Final release* is the time that a train employee or a signal employee is released from all activities at the behest of the railroad and begins his or her *statutory off-duty period*.

*FRA* means the Federal Railroad Administration.

*Headquarters* means the regular assigned on-duty location for signal employees, or the lodging facility or crew quarters where traveling signal gangs reside when working at various system locations.

*Interim release* means an off-duty period applied to train employees only, of at least 4 hours but less than the required *statutory off-duty period* at a *designated terminal*, which off-duty period temporarily suspends the accumulation of time on duty, but does not start a new *duty tour*.

*Limbo time* means a period of time treated as neither time on duty nor time off duty in 49 U.S.C. 21103 and 21104, and any other period of service for the railroad that does not qualify as either covered service or commingled service.

*MOW worker* means an individual employed to inspect, install, construct, repair, or maintain track, roadbed, bridges, buildings, roadway facilities, roadway maintenance machines, electric traction systems, and right of way of a railroad.

*On-duty time* means the actual time that an employee reports for duty to begin a *covered service assignment*.

*Other-than-regular reporting point* means any location where a train employee reports to begin or restart a *duty tour*, that is not the employee's *regular reporting point*.

*Plant railroad* means a plant or installation that owns or leases a locomotive, uses that locomotive to switch cars throughout the plant or installation, and is moving goods solely for use in the facility's own industrial processes. The plant or installation could include track immediately adjacent to the plant or installation if the plant railroad leases the track from the general system railroad and the lease provides for (and actual practice entails) the exclusive use of that trackage by the plant railroad and the general system railroad for purposes of moving only cars shipped to or from the plant. A plant or installation that operates a locomotive to switch or move cars for other entities, even if solely within the confines of the plant or installation, rather than for its own purposes or industrial processes, will not be considered a plant railroad because the performance of such activity makes the operation part of the general railroad system of transportation.

*Prior time off* means the amount of time that an employee has been off duty between identifiable periods of service at the behest of the railroad.

*Program edits* are filters contained in the logic of an hours of service record-keeping program that detect identifiable reporting errors made by a reporting employee at the time of data entry, and prevent the employee from submitting a record without first correcting or explaining any identified errors or anomalies.

*Quick tie-up* is a data entry process used only when an employee is within 3 minutes of, or is beyond, his or her statutory maximum on-duty period, which process allows an employee to enter only the basic information necessary for the railroad to identify the beginning of an employee's *statutory off-duty period*, to avoid the excess service that would otherwise be incurred in completing the full record for the *duty tour*. The information permitted in a quick tie-up process is limited to, at a maximum:

- (1) Board placement time;
- (2) Relieved location, date, and time;
- (3) Final release location, date, and time;

(4) Contact information for the employee during the statutory off-duty period;

(5) Request for rest in addition to the statutory minimum, if provided by collective bargaining agreement or local practice;

(6) The employee may be provided an option to enter basic payroll information, related only to the duty tour being tied up; and

(7) Employee certification of the tie-up information provided.

*Railroad* means a person providing railroad transportation.

*Railroad transportation* means any form of non-highway ground transportation that runs on rails or electromagnetic guideways, including commuter or other short-haul rail passenger service in a metropolitan or suburban area, and 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.

*Regular reporting point* means the permanent on-duty location of a train employee's regular assignment that is established through a job bulletin assignment (either a job award or a forced assignment) or through an employee's exercise of seniority to be placed in an assignment. The assigned regular reporting point is a single fixed location identified by the railroad, even for extra board and pool crew employees.

*Release* means—

- (1) For a train employee,
  - (i) The time within the *duty tour* that the employee begins an *interim release*;
  - (ii) The time that an employee completes a *covered service assignment* and begins another *covered service assignment* on a different train or job, or
  - (iii) The time that an employee completes a *covered service assignment* to begin another activity that counts as time on duty (including waiting for deadhead transportation to another duty location at which the employee will perform *covered service*, deadheading to duty, or any other *commingled service*).

§ 228.5

49 CFR Ch. II (10–1–12 Edition)

(2) For a signal employee, the time within a *duty tour* that the employee—

(i) Completes his or her regular assigned hours and begins an off-duty period of at least one hour but less than a *statutory off-duty period*; or

(ii) Completes his or her return travel from a trouble call or other unscheduled duty and begins an off-duty period of at least one hour, but less than a *statutory off-duty period*.

(3) For a dispatching service employee, when he or she stops performing *covered service* and *commingled service* within any 24-hour period and begins an *off-duty period* of at least one hour.

*Relieved time* means—

(1) The actual time that a train employee stops performing a *covered service assignment* or *commingled service*.

(2) The actual time that a signal employee:

(i) Completes his or her assigned duty hours, or stops performing *covered service* or *commingled service*, whichever is later; or

(ii) Stops performing *covered service* associated with a trouble call or other unscheduled duty outside of normally assigned duty hours.

*Reports for duty* means that an employee—

(i) Presents himself or herself at the location established by the railroad at the time the railroad established for the employee to be present; and

(ii) Is ready to perform *covered service*.

*Report-for-duty time* means—

(1) For a train employee, the actual time that the employee is required to be present at a *reporting point* and prepared to start a *covered service assignment*.

(2) For a signal employee, the assigned starting time of an employee's scheduled shift, or the time that he or she receives a trouble call or a call for any other unscheduled duty during an off-duty period.

(3) For a dispatching service employee, when the employee begins the turn-over process at or before the beginning of his or her assigned shift, or begins any other activity at the behest of the railroad during any 24-hour period in which covered service is performed.

*Reporting point* means any location where an employee is required to begin or restart a duty tour.

*Seniority move* means a repositioning at the behest of the employee, usually a repositioning from a regular assignment or extra board to a different regularly assigned position or extra board, as the result of the employee's selection of a bulletin assignment or the employee's exercise of seniority over a junior employee.

*Signal employee* means an individual who is engaged in installing, repairing, or maintaining signal systems.

*Station, office or tower* means the precise location where a dispatching service employee is expected to perform service for the railroad as defined in 49 U.S.C. 21105(b) and (c).

*Statutory off-duty period* means the period of 8 or 10 consecutive hours or more time, that is the minimum off-duty period required under the hours of service laws for a train employee or a signal employee to begin a new 24-hour period for the purposes of calculating his or her *total time on duty*.

*Total off-duty period* means the actual amount of time that a train employee or a signal employee is off duty between duty tours after the previous final release and before the beginning of the next duty tour. This time may differ from the expected prior time off that will be generated by the record-keeping system, if the employee performed service at the behest of the railroad between the duty tours.

*Total time on duty (TTOD)* means the total accumulation of time spent in periods of *covered service* and *commingled service* between qualifying *statutory off-duty periods* of 8 or 10 hours or more. Mandatory activities that do not constitute *covered service*, such as rules classes, when they may not attach to *covered service*, are counted as *limbo time*, rather than *commingled service*, which limbo time is not counted toward the calculation of *total time on duty*.

*Tourist, scenic, historic, or excursion operations that are not part of the general railroad system of transportation* means a tourist, scenic, historic, or excursion operation conducted only on track used exclusively for that purpose (*i.e.*, there is no freight, intercity passenger, or

commuter passenger railroad operation on the track).

*Train employee* means an individual engaged in or connected with the movement of a train, including a hostler.

*Travel time* means—

(1) For a signal employee, the time spent in transportation between the employee's *headquarters* and an outlying duty point or between the employee's residence and an outlying duty point, or, between duty locations, including both on-track and on-highway vehicular travel.

(2) For a dispatching service employee, the time spent in travel between *stations, offices, or towers* during the employee's time on duty.

*Type 1 assignment* means an assignment to be worked by a train employee who is engaged in commuter or intercity rail passenger transportation that requires the employee to report for duty no earlier than 4 a.m. on a calendar day and be released from duty no later than 8 p.m. on the same calendar day, and that complies with the provisions of § 228.405. For the purposes of this part, FRA considers a Type 1 assignment to present an acceptable level of risk for fatigue that does not violate the defined fatigue threshold under a scientifically valid, biomathematical model of human performance and fatigue specified by FRA at § 228.407(c)(1) or approved by FRA under the procedures at § 228.407(c)(2). However, a Type 1 assignment that is delayed such that the schedule actually worked includes any period of time between midnight and 4 a.m. is considered a Type 2 assignment for the purposes of compliance with § 228.405.

*Type 2 assignment.* (1) *Type 2 assignment* means an assignment to be worked by a train employee who is engaged in commuter or intercity rail passenger transportation that requires the employee to be on duty for any period of time between 8:01 p.m. on a calendar day and 3:59 a.m. on the next calendar day, or that otherwise fails to qualify as a Type 1 assignment. A Type 2 assignment is considered a Type 1 assignment if—

(i) It does not violate the defined fatigue threshold under a scientifically valid biomathematical model of human

performance and fatigue specified by FRA at 228.407(c)(2) or approved by FRA under the procedures at § 228.407(c)(1);

(ii) It complies with the provisions of § 228.405; and

(iii) It does not require the employee to be on duty for any period of time between midnight and 4 a.m.

(2) If a Type 2 assignment that would normally qualify to be treated as a Type 1 assignment is delayed so that the schedule actually worked includes any period of time between midnight and 4 a.m., the assignment is considered a Type 2 assignment for the purposes of compliance with § 228.405.

[74 FR 25346, May 27, 2009, as amended at 76 FR 50396, Aug. 12, 2011; 76 FR 67087, Oct. 31, 2011]

#### § 228.6 Penalties.

(a) *Civil penalties.* 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 to persons, or has caused death or injury, a penalty not to exceed \$105,000 per violation may be assessed. Each day a violation continues shall constitute a separate offense. See appendix B to this part for a statement of agency civil penalty policy. Violations of the hours of service laws themselves (*e.g.*, requiring an employee to work excessive hours or beginning construction of sleeping quarters subject to approval under subpart C of this part without prior approval) are subject to penalty under 49 U.S.C. 21303.

## § 228.7

(b) *Criminal penalties.* Any person who knowingly and willfully falsifies a report or record required to be kept under this part or otherwise knowingly and willfully violates any requirement of this part may be liable for criminal penalties of a fine under title 18 of the U.S. Code, imprisonment for up to two years, or both, in accordance with 49 U.S.C. 21311(a).

[76 FR 67087, Oct. 31, 2011, as amended at 77 FR 26704, May 7, 2012]

## Subpart B—Records and Reporting

### § 228.7 Hours of duty.

(a) For purposes of this part, time on duty of an employee actually engaged in or connected with the movement of any train, including a hostler, begins when he reports for duty and ends when he is finally released from duty, and includes—

- (1) Time engaged in or connected with the movement of any train;
- (2) Any interim period available for rest at a location that is not a designated terminal;
- (3) Any interim period of less than 4 hours available for rest at a designated terminal;
- (4) Time spent in deadhead transportation en route to a duty assignment; and
- (5) Time engaged in any other service for the carrier.

Time spent in deadhead transportation by an employee returning from duty to his point of final release may not be counted in computing time off duty or time on duty.

(b) For purposes of this part, time on duty of an employee who dispatches, reports, transmits, receives, or delivers orders pertaining to train movements by use of telegraph, telephone, radio, or any other electrical or mechanical device includes all time on duty in other service performed for the common carrier during the 24-hour period involved.

(c) For purposes of this part, time on duty of an employee who is engaged in installing, repairing or maintaining signal systems includes all time on duty in other service performed for a

## 49 CFR Ch. II (10–1–12 Edition)

common carrier during the 24-hour period involved.

[37 FR 12234, June 21, 1972, as amended at 43 FR 3124, Jan. 23, 1978]

### § 228.9 Records; general.

(a) Each manual record maintained under this part shall be—

- (1) Signed by the employee whose time on duty is being recorded or, in the case of a train and engine crew or a signal employee gang, signed by the ranking crewmember;
- (2) Retained for two years at locations identified by the carrier; and
- (3) Available upon request at the identified location for inspection and copying by the Administrator during regular business hours.

(b) Each electronic record maintained under this part shall be—

- (1) Certified by the employee whose time on duty is being recorded or, in the case of a train and engine crew or a signal employee gang, certified by the reporting employee who is a member of the train crew or signal gang whose time is being recorded;
- (2) Electronically stamped with the certifying employee's name and the date and time of certification;
- (3) Retained for 2 years in a secured file that prevents alteration after certification;
- (4) Accessible by the Administrator through a computer terminal of the railroad, using a railroad-provided identification code and a unique password.
- (5) Reproducible using the printing capability at the location where records are accessed.

[74 FR 25348, May 27, 2009]

### § 228.11 Hours of duty records.

(a) *In general.* Each railroad, or a contractor or a subcontractor of a railroad, shall keep a record, either manually or electronically, concerning the hours of duty of each employee. Each contractor or subcontractor of a railroad shall also record the name of the railroad for whom its employee performed covered service during the duty tour covered by the record. Employees who perform covered service assignments in a single duty tour that are

subject to the recordkeeping requirements of more than one paragraph of this section, must complete the record applicable to the covered service position for which they were called, and record other covered service as an activity constituting other service at the behest of the railroad.

(b) *For train employees.* Except as provided by paragraph (c) of this section, each hours of duty record for a train employee shall include the following information about the employee:

(1) Identification of the employee (initials and last name; or if last name is not the employee's surname, provide the employee's initials and surname).

(2) Each covered service position in a duty tour.

(3) Amount of time off duty before beginning a new covered service assignment or resuming a duty tour.

(4) Train ID for each assignment required to be reported by this part, except for the following employees, who may instead report the unique job or train ID identifying their assignment:

(i) Utility employees assigned to perform covered service, who are identified as such by a unique job or train ID;

(ii) Employees assigned to yard jobs, except that employees assigned to perform yard jobs on all or parts of consecutive shifts must at least report the yard assignment for each shift;

(iii) Assignments, either regular or extra, that are specifically established to shuttle trains into and out of a terminal during a single duty tour that are identified by a unique job or train symbol as such an assignment.

(5) Location, date, and beginning time of the first assignment in a duty tour, and, if the duty tour exceeds 12 hours and includes a qualifying period of interim release as provided by 49 U.S.C. 21103(b), the location, date, and beginning time of the assignment immediately following the interim release.

(6) Location, date, and time relieved for the last assignment in a duty tour, and, if the duty tour exceeds 12 hours and includes a qualifying period of interim release as provided by 49 U.S.C. 21103(b), the location, date, and time relieved for the assignment immediately preceding the interim release.

(7) Location, date, and time released from the last assignment in a duty tour, and, if the duty tour exceeds 12 hours and includes a qualifying period of interim release as provided by 49 U.S.C. 21103(b), the location, date, and time released from the assignment immediately preceding the interim release.

(8) Beginning and ending location, date, and time for periods spent in transportation, other than personal commuting, if any, to the first assignment in a duty tour, from an assignment to the location of a period of interim release, from a period of interim release to the next assignment, or from the last assignment in a duty tour to the point of final release, including the mode of transportation (train, track car, railroad-provided motor vehicle, personal automobile, etc.).

(9) Beginning and ending location, date, and time of any other service performed at the behest of the railroad.

(10) Identification (code) of service type for any other service performed at the behest of the railroad.

(11) Total time on duty for the duty tour.

(12) Reason for any service that exceeds 12 hours total time on duty for the duty tour.

(13) The total amount of time by which the sum of total time on duty and time spent awaiting or in deadhead transportation to the point of final release exceeds 12 hours.

(14) The cumulative total for the calendar month of—

(i) Time spent in covered service;

(ii) Time spent awaiting or in deadhead transportation from a duty assignment to the place of final release; and

(iii) Time spent in any other service at the behest of the railroad.

(15) The cumulative total for the calendar month of time spent awaiting or in deadhead transportation from a duty assignment to the place of final release following a period of 12 consecutive hours on duty.

(16) Number of consecutive days in which a period of time on duty was initiated.

(c) *Exceptions to requirements for train employees.* Paragraphs (b)(13) through (b)(16) of this section do not apply to

**§ 228.13**

**49 CFR Ch. II (10–1–12 Edition)**

the hours of duty records of train employees providing commuter rail passenger transportation or intercity rail passenger transportation. In addition to the information required by paragraphs (b)(1) through (b)(12) of this section, each hours of duty record for a train employee providing commuter rail passenger transportation or intercity rail passenger transportation shall include the following information:

(1) For train employees providing commuter rail passenger transportation or intercity rail passenger transportation, the date on which the series of at most 14 consecutive calendar days began for the duty tour.

(2) For train employees providing commuter rail passenger transportation or intercity rail passenger transportation, any date prior to the duty tour and during the series of at most 14 consecutive calendar days on which the employee did not initiate an on-duty period, if any.

(d) *For dispatching service employees.* Each hours of duty record for a dispatching service employee shall include the following information about the employee:

(1) Identification of the employee (initials and last name; or if last name is not the employee's surname, provide the employee's initials and surname).

(2) Each covered service position in a duty tour.

(3) Amount of time off duty before going on duty or returning to duty in a duty tour.

(4) Location, date, and beginning time of each assignment in a duty tour.

(5) Location, date, and time released from each assignment in a duty tour.

(6) Beginning and ending location, date, and time of any other service performed at the behest of the railroad.

(7) Total time on duty for the duty tour.

(e) *For signal employees.* Each hours of duty record for a signal employee shall include the following information about the employee:

(1) Identification of the employee (initials and last name; or if last name is not the employee's surname, provide the employee's initials and surname).

(2) Each covered service position in a duty tour.

(3) Headquarters location for the employee.

(4) Amount of time off duty before going on duty or resuming a duty tour.

(5) Location, date, and beginning time of each covered service assignment in a duty tour.

(6) Location, date, and time relieved for each covered service assignment in a duty tour.

(7) Location, date, and time released from each covered service assignment in a duty tour.

(8) Beginning and ending location, date, and time for periods spent in transportation, other than personal commuting, to or from a duty assignment, and mode of transportation (train, track car, railroad-provided motor vehicle, personal automobile, etc.).

(9) Beginning and ending location, date, and time of any other service performed at the behest of the railroad.

(10) Total time on duty for the duty tour.

(11) Reason for any service that exceeds 12 hours total time on duty for the duty tour.

[74 FR 25348, May 27, 2009, as amended at 76 FR 50397, Aug. 12, 2011]

**§ 228.13 [Reserved]**

**§ 228.17 Dispatcher's record of train movements.**

(a) Each carrier shall keep, for each dispatching district, a record of train movements made under the direction and control of a dispatcher who uses telegraph, telephone, radio, or any other electrical or mechanical device to dispatch, report, transmit, receive, or deliver orders pertaining to train movements. The following information shall be included in the record:

(1) Identification of timetable in effect.

(2) Location and date.

(3) Identification of dispatchers and their times on duty.

(4) Weather conditions at 6-hour intervals.

(5) Identification of enginemen and conductors and their times on duty.

(6) Identification of trains and engines.

(7) Station names and office designations.

## Federal Railroad Administration, DOT

## § 228.19

(8) Distances between stations.

(9) Direction of movement and the time each train passes all reporting stations.

(10) Arrival and departure times of trains at all reporting stations.

(11) Unusual events affecting movement of trains and identification of trains affected.

(b) [Reserved]

### § 228.19 Monthly reports of excess service.

(a) *In general.* Except as provided in paragraph (h) of this section, each railroad, or a contractor or a subcontractor of a railroad, shall report to the Associate Administrator for Railroad Safety/Chief Safety Officer, Federal Railroad Administration, Washington, DC 20590, each instance of excess service listed in paragraphs (b) through (e) of this section, in the manner provided by paragraph (f) of this section, within 30 days after the calendar month in which the instance occurs.

(b) *For train employees.* Except as provided in paragraph (c) of this section, the following instances of excess service by train employees must be reported to FRA as required by this section:

(1) A train employee is on duty for more than 12 consecutive hours.

(2) A train employee continues on duty without at least 10 consecutive hours off duty during the preceding 24 hours. Instances involving duty tours that are broken by less than 10 consecutive hours off duty which duty tours constitute more than a total of 12 hours time on duty must be reported.<sup>1</sup>

(3) A train employee returns to duty without at least 10 consecutive hours off duty during the preceding 24 hours. Instances involving duty tours that are broken by less than 10 consecutive hours off duty which duty tours constitute more than a total of 12 hours time on duty must be reported.<sup>1</sup>

<sup>1</sup>Instances involving duty tours that are broken by four or more consecutive hours of off duty time at a designated terminal which duty tours do not constitute more than a total of 12 hours time on duty are not required to be reported, provided such duty tours are immediately preceded by 10 or more consecutive hours of off-duty time.

(4) A train employee returns to duty without additional time off duty, equal to the total amount of time by which the employee's sum of total time on duty and time spent awaiting or in deadhead transportation to the point of final release exceeds 12 hours.

(5) A train employee exceeds a cumulative total of 276 hours in the following activities in a calendar month:

(i) Time spent in covered service;

(ii) Time spent awaiting or in deadhead transportation from a duty assignment to the place of final release; and

(iii) Time spent in any other service at the behest of the railroad.

(6) A train employee initiates an on-duty period on more than 6 consecutive days, when the on-duty period on the sixth consecutive day ended at the employee's home terminal, and the seventh consecutive day is not allowed pursuant to a collective bargaining agreement or pilot project.

(7) A train employee returns to duty after initiating an on-duty period on 6 consecutive days, without 48 consecutive hours off duty at the employee's home terminal.

(8) A train employee initiates an on-duty period on more than 7 consecutive days.

(9) A train employee returns to duty after initiating an on-duty period on 7 consecutive days, without 72 consecutive hours off duty at the employee's home terminal.

(10) A train employee exceeds the following limitations on time spent awaiting or in deadhead transportation from a duty assignment to the place of final release following a period of 12 consecutive hours on duty:

(i) 40 hours in any calendar month completed prior to October 1, 2009;

(ii) 20 hours in the transition period from October 1, 2009–October 15, 2009;

(iii) 15 hours in the transition period from October 16, 2009–October 31, 2009; and

(iv) 30 hours in any calendar month completed after October 31, 2009.

(c) *Exception to requirements for train employees.* For train employees who provide commuter rail passenger transportation or intercity rail passenger transportation during a duty tour, the following instances of excess service

§ 228.19

49 CFR Ch. II (10–1–12 Edition)

must be reported to FRA as required by this section:

(1) A train employee is on duty for more than 12 consecutive hours.

(2) A train employee returns to duty after 12 consecutive hours of service without at least 10 consecutive hours off duty.

(3) A train employee continues on duty without at least 8 consecutive hours off duty during the preceding 24 hours. Instances involving duty tours that are broken by less than 8 consecutive hours off duty which duty tours constitute more than a total of 12 hours time on duty must be reported.<sup>2</sup>

(4) A train employee returns to duty without at least 8 consecutive hours off duty during the preceding 24 hours. Instances involving duty tours that are broken by less than 8 consecutive hours off duty which duty tours constitute more than a total of 12 hours time on duty must be reported.<sup>2</sup>

(5) A train employee, after first initiating an on-duty period each day for 6 or more consecutive calendar days including one or more Type 2 assignments, the last on-duty period of which ended at the employee's home terminal, initiates an on-duty period without having had 24 consecutive hours off duty at the employee's home terminal.

(6) A train employee, after first initiating an on-duty period each day for 6 or more consecutive days including one or more Type 2 assignments, initiates two or more on-duty periods without having had 24 consecutive hours off duty at the employee's home terminal.

(7) A train employee, after initiating on-duty periods on 13 or more calendar days during a series of at most 14 consecutive calendar days as defined in § 228.405(a)(3)(i), the last of which ended at the employee's home terminal, then initiates an on-duty period without having had at least two consecutive calendar days off duty at the employee's home terminal.

<sup>2</sup>Instances involving duty tours that are broken by four or more consecutive hours of off-duty time at a designated terminal which duty tours do not constitute more than a total of 12 hours time on duty are not required to be reported, provided such duty tours are immediately preceded by 8 or more consecutive hours of off-duty time.

(8) A train employee, after initiating an on-duty periods on 13 or more calendar days during a series of at most 14 consecutive calendar days as defined in § 228.405(a)(3)(i), then initiates two or more on-duty periods without having had at least two consecutive calendar days off duty at the employee's home terminal.

(d) *For dispatching service employees.* The following instances of excess service by dispatching service employees must be reported to FRA as required by this section:

(1) A dispatching service employee is on duty for more than 9 hours in any 24-hour period at an office where two or more shifts are employed.

(2) A dispatching service employee is on duty for more than 12 hours in any 24-hour period at any office where one shift is employed.

(e) *For signal employees.* The following instances of excess service by signal employees must be reported to FRA as required by this section:

(1) A signal employee is on duty for more than 12 consecutive hours.

(2) A signal employee continues on duty without at least 10 consecutive hours off duty during the preceding 24 hours.

(3) A signal employee returns to duty without at least 10 consecutive hours off duty during the preceding 24 hours.

(f) Except as provided in paragraph (h) of this section, reports required by paragraphs (b) through (e) of this section shall be filed in writing on FRA Form F-6180-3<sup>3</sup> with the Office of Railroad Safety, Federal Railroad Administration, Washington, DC 20590. A separate form shall be used for each instance reported.

(g) *Use of electronic signature.* For the purpose of complying with paragraph (f) of this section, the signature required on Form FRA F-6180-3 may be provided to FRA by means of an electronic signature provided that:

<sup>3</sup>Form may be obtained from the Office of Railroad Safety, Federal Railroad Administration, Washington, DC 20590. Reproduction is authorized.

(1) The record contains the printed name of the signer and the date and actual time that the signature was executed, and the meaning (such as authorship, review, or approval), associated with the signature;

(2) Each electronic signature shall be unique to one individual and shall not be used by, or assigned to, anyone else;

(3) Before a railroad, or a contractor or subcontractor to a railroad, establishes, assigns, certifies, or otherwise sanctions an individual's electronic signature, or any element of such electronic signature, the organization shall verify the identity of the individual;

(4) Persons using electronic signatures shall, prior to or at the time of such use, certify to the agency that the electronic signatures in their system, used on or after the effective date of this regulation, are the legally binding equivalent of traditional handwritten signatures;

(5) The certification shall be submitted, in paper form and signed with a traditional handwritten signature, to the Associate Administrator for Railroad Safety/Chief Safety Officer; and

(6) Persons using electronic signatures shall, upon agency request, provide additional certification or testimony that a specific electronic signature is the legally binding equivalent of the signer's handwritten signature.

(h) *Exception.* A railroad, or a contractor or subcontractor to a railroad, is excused from the requirements of paragraphs (a) and (f) of this section as to any employees for which—

(1) The railroad, or a contractor or subcontractor to a railroad, maintains hours of service records using an electronic recordkeeping system that complies with the requirements of subpart D of this part; and

(2) The electronic recordkeeping system referred to in paragraph (h)(1) of this section requires—

(i) The employee to enter an explanation for any excess service certified by the employee; and

(ii) The railroad, or a contractor or subcontractor of a railroad, to analyze each instance of excess service certified by one of its employees, make a determination as to whether each instance of excess service would be reportable under the provisions of para-

graphs (b) through (e) of this section, and allows the railroad, or a contractor or subcontractor to a railroad, to append its analysis to its employee's electronic record; and

(iii) Allows FRA inspectors and State inspectors participating under 49 CFR part 212 access to employee reports of excess service and any explanations provided.

[74 FR 25349, May 27, 2009, as amended at 76 FR 50397, Aug. 12, 2011]

§§ 228.21–228.23 [Reserved]

**Subpart C—Construction of Railroad-Provided Sleeping Quarters**

SOURCE: 43 FR 31012, July 19, 1978, unless otherwise noted.

**§ 228.101 Distance requirement for employee sleeping quarters; definitions used in this subpart.**

(a) The Hours of Service Act, as amended (45 U.S.C. 61–64b), makes it unlawful for any common carrier engaged in interstate or foreign commerce by railroad to begin, on or after July 8, 1976, the construction or reconstruction of sleeping quarters for employees who perform duties covered by the act “within or in the immediate vicinity (as determined in accordance with rules prescribed by the Secretary of Transportation) of any area where railroad switching or humping operations are performed.” 45 U.S.C. 62(a)(4). This subpart sets forth (1) a general definition of “immediate vicinity” (§ 228.101(b)), (2) procedures under which a carrier may request a determination by the Federal Railroad Administration that a particular proposed site is not within the “immediate vicinity” of railroad switching or humping operations (§§ 228.103 and 228.105), and (3) the basic criteria utilized in evaluating proposed sites (§ 228.107).

(b) Except as determined in accordance with the provisions of this subpart, the ‘immediate vicinity’ shall mean the area within one-half mile (2,640 feet) (804 meters) of switching or humping operations as measured from the nearest rail of the nearest trackage where switching or humping operations are performed to the point on the site

## § 228.102

where the carrier proposes to construct or reconstruct the exterior wall of the structure, or portion of such wall, which is closest to such operations.

(c) As used in this subpart—

(1) *Construction* shall refer to the—

- (i) Creation of a new facility;
- (ii) Expansion of an existing facility;
- (iii) Placement of a mobile or modular facility; or
- (iv) Acquisition and use of an existing building.

(2) *Reconstruction* shall refer to the—

(i) Replacement of an existing facility with a new facility on the same site; or

(ii) Rehabilitation or improvement of an existing facility (normal periodic maintenance excepted) involving the expenditure of an amount representing more than 50 percent of the cost of replacing such facility on the same site at the time the work of rehabilitation or improvement began, the replacement cost to be estimated on the basis of contemporary construction methods and materials.

(3) *Switching or humping operations* includes the classification of placarded railroad cars according to commodity or destination, assembling of placarded cars for train movements, changing the position of placarded cars for purposes of loading, unloading, or weighing, and the placing of placarded cars for repair. However, the term does not include the moving of rail equipment in connection with work service, the moving of a train or part of a train within yard limits by a road locomotive or placing locomotives or cars in a train or removing them from a train by a road locomotive while en route to the train's destination. The term does include operations within this definition which are conducted by any railroad; it is not limited to the operations of the carrier contemplating construction or reconstruction of railroad employee sleeping quarters.

(4) *Placarded car* shall mean a railroad car required to be placarded by the Department of Transportation hazardous materials regulations (49 CFR 172.504).

(5) The term  $L_{eq}$  (8) shall mean the equivalent steady state sound level which in 8 hours would contain the same acoustic energy as the time-vary-

## 49 CFR Ch. II (10–1–12 Edition)

ing sound level during the same time period.

[43 FR 31012, July 19, 1978, as amended at 76 FR 67088, Oct. 31, 2011]

### § 228.102 Distance requirement for camp cars provided as sleeping quarters exclusively to MOW workers.

(a) The hours of service laws at 49 U.S.C. 21106(b) provide that a railroad that uses camp cars must comply with 49 U.S.C. 21106(a) no later than December 31, 2009. Accordingly, on or after December 31, 2009, a railroad shall not begin construction or reconstruction of a camp car provided by the railroad as sleeping quarters exclusively for MOW workers within or in the immediate vicinity of any area where railroad switching or humping of placarded cars is performed.

(b) This subpart includes definitions of most of the relevant terms (§ 228.101(b) and (c)), the procedures under which a railroad may request a determination by the Federal Railroad Administration that a particular proposed site for the camp car is not within the “immediate vicinity” of railroad switching or humping operations (§§ 228.103 and 228.105), and the basic criteria utilized in evaluating proposed sites. See § 228.5 for definitions of other terms. For purposes of this § 228.102, references to “employees” in §§ 228.103 through 228.107 shall be read to include MOW workers.

[76 FR 67088, Oct. 31, 2011]

### § 228.103 Approval procedure: construction within one-half mile (2,640 feet) (804 meters).

(a) A common carrier that has developed plans for the construction or reconstruction of sleeping quarters subject to this subpart and which is considering a site less than one-half mile (2,640 feet) (804 meters) from any area where switching or humping operations are performed, measured from the nearest rail of the nearest trackage utilized on a regular or intermittent basis for switching or humping operations to the point on the site where the carrier proposes to construct or reconstruct the exterior wall of the structure, or portion of such wall, which is closest to such operations,

must obtain the approval of the Federal Railroad Administration before commencing construction or reconstruction on that site. Approval may be requested by filing a petition conforming to the requirements of this subpart.

(b) A carrier is deemed to have conducted switching or humping operations on particular trackage within the meaning of this subpart if placarded cars are subjected to the operations described in § 228.101(c)(3) within the 365-day period immediately preceding the date construction or reconstruction is commenced or if such operations are to be permitted on such trackage after such date. If the carrier does not have reliable records concerning the traffic handled on the trackage within the specified period, it shall be presumed that switching of placarded cars is conducted at the location and construction or reconstruction of sleeping quarters within one-half mile shall be subject to the approval procedures of this subpart.

(c) A petition shall be filed in accordance with the requirements of § 211.7(b)(1) of this chapter and shall contain the following:

(1) A brief description of the type of construction planned, including materials to be employed, means of egress from the quarters, and actual and projected exterior noise levels and projected interior noise levels;

(2) The number of employees expected to utilize the quarters at full capacity;

(3) A brief description of the site, including:

(i) Distance from trackage where switching or humping operations are performed, specifying distances from particular functions such as classification, repair, assembling of trains from large groups of cars, etc. cetera;

(ii) Topography within a general area consisting of the site and all of the rail facilities close to the site;

(iii) Location of other physical improvements situated between the site and areas where railroad operations are conducted;

(4) A blueprint or other drawing showing the relationship of the site to trackage and other planned and existing facilities;

(5) The proposed or estimated date for commencement of construction;

(6) A description of the average number and variety of rail operations in the areas within one-half mile (2,640 feet) (804 meters) of the site (e.g., number of cars classified in 24-hour period; number of train movements);

(7) An estimate of the average daily number of placarded rail cars transporting hazardous materials through the railroad facility (where practicable, based on a 365-day period sample, that period not having ended more than 120 days prior to the date of filing the petition), specifying the—

(i) Number of such cars transporting class A explosives and poison gases; and

(ii) Number of DOT Specification 112A and 114A tank cars transporting flammable gas subject to FRA emergency order No. 5;

(8) A statement certified by a corporate officer of the carrier possessing authority over the subject matter explaining any plans of that carrier for utilization of existing trackage, or for the construction of new trackage, which may impact on the location of switching or humping operations within one-half mile of the proposed site (if there are no plans, the carrier official must so certify); and

(9) Any further information which is necessary for evaluation of the site.

(d) A petition filed under this section must contain a statement that the petition has been served on the recognized representatives of the railroad employees who will be utilizing the proposed sleeping quarters, together with a list of the employee representatives served.

[43 FR 31012, July 19, 1978, as amended at 74 FR 25173, May 27, 2009]

**§ 228.105 Additional requirements; construction within one-third mile (1,760 feet) (536 meters) of certain switching.**

(a) In addition to providing the information specified by § 228.103, a carrier seeking approval of a site located within one-third mile (1,760 feet) (536 meters) of any area where railroad switching or humping operations are performed involving any cars required to be placarded “EXPLOSIVES A” or

**§ 228.107**

“POISON GAS” or any DOT Specification 112A or 114A tank cars transporting flammable gas subject to FRA emergency order No. 5 shall establish by a supplementary statement certified by a corporate officer possessing authority over the subject matter that—

(1) No feasible alternate site located at or beyond one-third mile from switching or humping operations is either presently available to the railroad or is obtainable within 3 miles (15,840 feet) (4,827 meters) of the reporting point for the employees who are to be housed in the sleeping quarters;

(2) Natural or other barriers exist or will be created prior to occupancy of the proposed facility between the proposed site and any areas in which switching or humping operations are performed which will be adequate to shield the facility from the direct and severe effects of a hazardous materials accident/incident arising in an area of switching or humping operations;

(3) The topography of the property is such as most likely to cause any hazardous materials unintentionally released during switching or humping to flow away from the proposed site; and

(4) Precautions for ensuring employee safety from toxic gases or explosions such as employee training and evacuation plans, availability of appropriate respiratory protection, and measures for fire protection, have been considered.

(b) In the absence of reliable records concerning traffic handled on trackage within the one-third mile area, it shall be presumed that the types of cars enumerated in paragraph (a) of this section are switched on that trackage; and the additional requirements of this section shall be met by the petitioning carrier, unless the carrier establishes that the switching of the enumerated cars will be effectively barred from the trackage if the petition is approved.

**§ 228.107 Action on petition.**

(a) Each petition for approval filed under § 228.103 is referred to the Railroad Safety Board for action in accordance with the provisions of part 211, title 49, CFR, concerning the processing of requests for special approvals.

(b) In considering a petition for approval filed under this subpart, the

**49 CFR Ch. II (10–1–12 Edition)**

Railroad Safety Board evaluates the material factors bearing on—

(1) The safety of employees utilizing the proposed facility in the event of a hazardous materials accident/incident and in light of other relevant safety factors; and

(2) Interior noise levels in the facility.

(c) The Railroad Safety Board will not approve an application submitted under this subpart if it appears from the available information that the proposed sleeping quarters will be so situated and constructed as to permit interior noise levels due to noise under the control of the railroad to exceed an  $L_{eq}(8)$  value of 55dB(A). If individual air conditioning and heating systems are to be utilized, projections may relate to noise levels with such units turned off.

(d) Approval of a petition filed under this subpart may be withdrawn or modified at any time if it is ascertained, after opportunity for a hearing, that any representation of fact or intent made by a carrier in materials submitted in support of a petition was not accurate or truthful at the time such representation was made.

**Subpart D—Electronic Recordkeeping**

SOURCE: 74 FR 25350, May 27, 2009, unless otherwise noted.

**§ 228.201 Electronic recordkeeping; general.**

For purposes of compliance with the recordkeeping requirements of subpart B, a railroad, or a contractor or a subcontractor to a railroad may create and maintain any of the records required by subpart B through electronic transmission, storage, and retrieval provided that all of the following conditions are met:

(1) The system used to generate the electronic record meets all requirements of this subpart;

(2) The electronically generated record contains the information required by § 228.11;

(3) The railroad, or contractor or subcontractor to the railroad, monitors its electronic database of employee hours

of duty records through sufficient number of monitoring indicators to ensure a high degree of accuracy of these records; and

(4) The railroad, or contractor or subcontractor to the railroad, trains its employees on the proper use of the electronic recordkeeping system to enter the information necessary to create their hours of service record, as required by § 228.207.

(5) The railroad, or contractor or subcontractor to the railroad, maintains an information technology security program adequate to ensure the integrity of the system, including the prevention of unauthorized access to the program logic or individual records.

(6) FRA's Associate Administrator for Railroad Safety/Chief Safety Officer may prohibit or revoke the authority to use an electronic system if FRA finds the system is not properly secure, is inaccessible to FRA, or fails to record and store the information adequately and accurately. FRA will record such a determination in writing, including the basis for such action, and will provide a copy of its determination to the affected railroad, or contractor or subcontractor to a railroad.

**§ 228.203 Program components.**

(a) *System security.* The integrity of the program and database must be protected by a security system that utilizes an employee identification number and password, or a comparable method, to establish appropriate levels of program access meeting all of the following standards:

(1) Data input is restricted to the employee or train crew or signal gang whose time is being recorded, with the following exceptions:

(i) A railroad, or a contractor or subcontractor to a railroad, may allow its recordkeeping system to pre-populate fields of the hours of service record provided that—

(A) The recordkeeping system pre-populates fields of the hours of service record with information known to the railroad, or contractor or subcontractor to the railroad, to be factually accurate for a specific employee.

(B) The recordkeeping system may also provide the ability for employees

to copy data from one field of a record into another field, where applicable.

(C) Estimated, historical, or arbitrary data are not used to pre-populate any field of an hours of service record.

(D) A railroad, or a contractor or a subcontractor to a railroad, is not in violation of this paragraph if it makes a good faith judgment as to the factual accuracy of the data for a specific employee but nevertheless errs in pre-populating a data field.

(E) The employee may make any necessary changes to the data by typing into the field, without having to access another screen or obtain clearance from the railroad, or a contractor or subcontractor to a railroad.

(ii) A railroad, or a contractor or a subcontractor to a railroad, shall allow employees to complete a verbal quick tie-up, or to transmit by facsimile or other electronic means the information necessary for a quick tie-up, if—

(A) The employee is released from duty at a location at which there is no terminal available;

(B) Computer systems are unavailable as a result of technical issues; or

(C) Access to computer terminals is delayed and the employee has exceeded his or her maximum allowed time on duty.

(2) No two individuals have the same electronic identity.

(3) A record cannot be deleted or altered by any individual after the record is certified by the employee who created the record.

(4) Any amendment to a record is either—

(i) Electronically stored apart from the record that it amends, or

(ii) Electronically attached to the record as information without changing the original record.

(5) Each amendment to a record uniquely identifies the individual making the amendment.

(6) The electronic system provides for the maintenance of inspection records as originally submitted without corruption or loss of data.

(7) Supervisors and crew management officials can access, but cannot delete or alter the records of any employee after the report-for-duty time of the employee or after the record has been certified by the reporting employee.

**§ 228.205**

**49 CFR Ch. II (10–1–12 Edition)**

(b) *Identification of the individual entering data.* The program must be capable of identifying each individual who entered data for a given record. If a given record contains data entered by more than one individual, the program must be capable of identifying each individual who entered specific information within the record.

(c) *Capabilities of program logic.* The program logic must have the ability to—

(1) Calculate the total time on duty for each employee, using data entered by the employee and treating each identified period as defined in § 228.5;

(2) Identify input errors through the use of program edits;

(3) Require records, including outstanding records, the completion of which was delayed, to be completed in chronological order;

(4) Require reconciliation when the known (system-generated) prior time off differs from the prior time off reported by an employee;

(5) Require explanation if the total time on duty reflected in the certified record exceeds the statutory maximum for the employee;

(6) Require the use of a quick tie-up process when the employee has exceeded or is within three minutes of his or her statutory maximum time on duty;

(7) Require that the employee's certified final release be not more than three minutes in the future, and that the employee may not certify a final release time for a current duty tour that is in the past, compared to the clock time of the computer system at the time that the record is certified, allowing for changes in time zones;

(8) Require automatic modification to prevent miscalculation of an employee's total time on duty for a duty tour that spans changes from and to daylight savings time;

(9) For train employees, require completion of a full record at the end of a duty tour when the employee initiates a tie-up with less than the statutory maximum time on duty and a quick tie-up is not mandated;

(10) For train employees, disallow use of a quick tie-up when the employee has time remaining to complete a full record, except as provided in paragraph (a)(1)(ii) of this section.

(11) Disallow any manipulation of the tie-up process that precludes compliance with any of the requirements specified by paragraphs (c)(1) through (c)(10) of this section.

(d) *Search capabilities.* The program must contain sufficient search criteria to allow any record to be retrieved through a search of any one or more of the following data fields, by specific date or by a date range not exceeding 30 days for the data fields specified by paragraphs (d)(1) and (d)(2) of this section, and not exceeding one day for the data fields specified by paragraphs (d)(3) through (d)(7) of this section:

(1) Employee, by name or identification number;

(2) Train or job symbol;

(3) Origin location, either yard or station;

(4) Released location, either yard or station;

(5) Operating territory (i.e., division or service unit, subdivision, or railroad-identified line segment);

(6) Certified records containing one or more instances of excess service; and

(7) Certified records containing duty tours in excess of 12 hours.

(e) The program must display individually each train or job assignment within a duty tour that is required to be reported by this part.

**§ 228.205 Access to electronic records.**

(a) FRA inspectors and State inspectors participating under 49 CFR Part 212 must have access to hours of service records created and maintained electronically that is obtained as required by § 228.9(b)(4).

(b) Railroads must establish and comply with procedures for providing an FRA inspector or participating State inspector with an identification number and temporary password for access to the system upon request, which access will be valid for a period not to exceed seven days. Access to the system must be provided as soon as possible and no later than 24 hours after a request for access.

(c) The inspection screen provided to FRA inspectors and participating State inspectors for searching employee hours of duty records must be formatted so that—

(1) Each data field entered by an employee on the input screen is visible to the FRA inspector or participating State inspector; and

(2) The data fields are searchable as described in § 228.203(d) and yield access to all records matching criteria specified in a search.

(3) Records are displayed in a manner that is both crew-based and duty tour oriented, so that the data pertaining to all employees who worked together as part of a crew or signal gang will be displayed together, and the record will include all of the assignments and activities of a given duty tour that are required to be recorded by this part.

#### § 228.207 Training.

(a) *In general.* A railroad, or a contractor or subcontractor to a railroad, shall provide its train employees, signal employees, and dispatching service employees and its supervisors of these employees with initial training and refresher training as provided in this section.

(b) *Initial training.* (1) Initial training shall include the following:

(i) Instructional components presented in a classroom setting or by electronic means; and

(ii) Experiential (“hands-on”) components; and

(iii) Training on—

(A) The aspects of the hours of service laws relevant to the employee’s position that are necessary to understanding the proper completion of the hours of service record required by this part, and

(B) The entry of hours of service data, into the electronic system or on the appropriate paper records used by the railroad or contractor or subcontractor to a railroad for whom the employee performs covered service; and

(iv) Testing to ensure that the objectives of training are met.

(2) Initial training shall be provided—

(i) To each current employee and supervisor of an employee as soon after May 27, 2009 as practicable; and

(ii) To new employees and supervisors prior to the time that they will be required to complete an hours of service record or supervise an employee required to complete an hours of service record.

(c) *Refresher training.* (1) The content and level of formality of refresher training should be tailored to the needs of the location and employees involved, except that the training shall—

(i) Emphasize any relevant changes to the hours of service laws, the reporting requirements in this part, or the carrier’s electronic or other record-keeping system since the employee last received training; and

(ii) Cover any areas in which supervisors or other railroad managers are finding recurrent errors in the employees’ records through the monitoring indicators.

(2) Refresher training shall be provided to each employee any time that recurrent errors in records prepared by the employee, discovered through the monitoring indicators, suggest, for example, the employee’s lack of understanding of how to complete hours of service records.

### Subpart E—Safety and Health Requirements for Camp Cars Provided by Railroads as Sleeping Quarters

SOURCE: 76 FR 67088, Oct. 31, 2011, unless otherwise noted.

#### § 228.301 Purpose and scope.

The purpose of this subpart is to prescribe standards for the design, operation, and maintenance of camp cars that a railroad uses as sleeping quarters for its employees or MOW workers or both so as to protect the safety and health of those employees and MOW workers and give them an opportunity for rest free from the interruptions caused by noise under the control of the railroad, and provide indoor toilet facilities, potable water, and other features to protect the health and safety of the employees and MOW workers.

#### § 228.303 Application and responsibility for compliance.

(a) This subpart applies to all railroads except the following:

(1) Railroads that operate only on track inside an installation that is not part of the general railroad system of transportation (*i.e.*, plant railroads, as defined in § 228.5);

## § 228.305

(2) Tourist, scenic, historic, or excursion operations that are not part of the general railroad system of transportation as defined in § 228.5; or

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

(b) Although the duties imposed by this subpart are generally stated in terms of the duty of a railroad, each person, including a contractor or subcontractor for a railroad, who performs any task or provides camp cars covered by this subpart, shall do so in accordance with this subpart.

### § 228.305 Compliance date.

On and after December 30, 2011, a railroad shall not provide a camp car for use as sleeping quarters by an employee or MOW worker unless the camp car complies with all requirements of this subpart.

### § 228.307 Definitions.

As used in this subpart—

*dB(A)* means the sound pressure level in decibels measured on the A-weighted scale.

*Decibel (dB)* means a logarithmic unit of measurement that expresses the magnitude of a physical quantity (usually power or intensity) relative to a specified reference level. For the measurement of noise in this subpart, the reference level for the intensity of sound pressure in air is 20 micropascals.

*Foot-candle* means a one lumen of light density per square foot.

*HVAC* means heating, ventilation, and air conditioning.

*Lavatory* means a basin or similar vessel used primarily for washing of the hands, arms, face, and head.

*$L_{eq}(\beta)$*  means the equivalent steady state sound level that in 8 hours would contain the same acoustic energy as the time-varying sound level during the same time period.

*Nonwater carriage toilet* means a toilet not connected to a sewer.

*Occupant* means an employee or an MOW worker (both as defined in § 228.5) whose sleeping quarters are a camp car.

*Ppm* means parts per million.

## 49 CFR Ch. II (10–1–12 Edition)

*Potable water* means water that meets the quality standards prescribed in the U.S. Environmental Protection Agency's National Primary Drinking Water Standards set forth in 40 CFR part 141.

*Potable water system* means the containers, tanks, and associated plumbing lines and valves that hold, convey, and dispense potable water within a camp car.

*Toilet* means a chemical toilet, a recirculating toilet, a combustion toilet, or a toilet that is flushed with water; however, a urinal is not a toilet.

*Toilet room* means a room containing a toilet.

*Toxic material* means a material in concentration or amount of such toxicity as to constitute a recognized hazard that is causing or is likely to cause death or serious physical harm.

*Watering* means the act of filling potable water systems.

### § 228.309 Structure, emergency egress, lighting, temperature, and noise-level standards.

(a) *General.* Each camp car must be constructed in a manner that will provide protection against the elements.

(b) *Floors.* Floors must be of smooth and tight construction and must be kept in good repair.

(c) *Windows and other openings.* (1) All camp cars must be provided with windows the total area of which must be not less than 10 percent of the floor area. At least one-half of each window designed to be opened must be so constructed that it can be opened for purposes of ventilation. Durable opaque window coverings must be provided to reduce the entrance of light during sleeping hours.

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

(d) *Steps, entry ways, passageways, and corridors.* All steps, entry ways, passageways, and corridors providing normal entry to or between camp cars must be constructed of durable weather-resistant material and properly maintained. Any broken or unsafe fixtures or components in need of repair must be repaired or replaced promptly.

(e) *Emergency egress.* Each camp car must be constructed in a manner to

provide adequate means of egress in an emergency situation. At a minimum, a means of emergency egress must be located in at least two places in camp car for emergency exits.

(f) *Lighting.* Each habitable room in a camp car including but not limited to a toilet room, that is provided to an occupant must be provided with adequate lighting as specified below:

(1) When occupants are present, the pathway to any exit not immediately accessible to occupants, such as through an interior corridor, shall be illuminated at all times to values of at least 1 foot-candle measured at the floor, provided that where the pathway passes through a sleeping compartment, the pathway up to the compartment will be illuminated, but illumination is not required inside the sleeping compartment.

(2) Toilet and shower rooms shall have controlled lighting that will illuminate the room to values of at least 10 foot-candles measured at the floor.

(3) Other areas shall have controlled lighting that will illuminate the room area to values of at least 30 foot-candles measured at the floor.

(g) *Temperature.* Each camp car must be provided with equipment capable of maintaining a temperature of at least 68 degrees Fahrenheit (F.) during cold weather and no greater than 75 degrees F. during hot weather. A temperature of at least 68 degrees F. during cold weather and no greater than 75 degrees F. during hot weather must be maintained within an occupied camp car unless the equipment is individually controlled by its occupant(s).

(h) *Noise control.* Noise levels attributable to noise sources under the control of the railroad shall not exceed an  $L_{eq}(8)$  value of 55 dB(A), with windows and doors closed and exclusive of noise from cooling, heating, and ventilating equipment, for any 480-minute period during which the facility is occupied.

**§ 228.311 Minimum space requirements, beds, storage, and sanitary facilities.**

(a) Each camp car used for sleeping purposes must contain at least 80 square feet of floor space for each occupant, with a maximum of four occupants per car. At least a 7-foot ceiling,

measured at the entrance to the car, must be provided.

(b) A bed, cot, or bunk for each occupant and suitable lockable storage facility, such as a lockable wall locker, or space for a lockable foot locker for each occupant's clothing and personal articles must be provided in every room used for sleeping purposes. Except where partitions are provided, such beds or similar facilities must be spaced not closer than 36 inches laterally (except in rail-mounted modular units, where the beds shall be spaced not closer than 30 inches, and highway trailer units, where the beds shall be spaced not closer than 26 inches) and 30 inches end to end, and must be elevated at least 12 inches from the floor. Multi-deck bunks, multi-deck bunk beds, and multi-deck similar facilities may not be used.

(c) Unless otherwise provided by a collective bargaining agreement, clean linens must be provided to each occupant.

(d) In a camp car where occupants cook, live, and sleep, a minimum of 120 square feet of floor space per occupants must be provided. Sanitary facilities must be provided for storing and preparing food. *See also* § 228.325.

**§ 228.313 Electrical system requirements.**

(a) All heating, cooking, ventilation, air conditioning, and water heating equipment must be installed in accordance with an industry-recognized standard. Upon request by FRA, the railroad must identify the industry-recognized standard that it utilizes and establish its compliance with that standard.

(b) All electrical systems installed, including external electrical supply connections, must be compliant with an industry-recognized standard. Upon request by FRA, the railroad must identify the industry-recognized standard that it utilizes and establish its compliance with that standard.

(c) Each occupied camp car shall be equipped with or serviced by a safe and working HVAC system.

**§ 228.315 Vermin control.**

Camp cars shall be constructed, equipped, and maintained to prevent

**§ 228.317**

the entrance or harborage of rodents, insects, or other vermin. A continuing and effective extermination program shall be instituted where the presence of vermin is detected.

**§ 228.317 Toilets.**

(a) *Number of toilets provided.* Each individual camp car that provides sleeping facilities must have one room with a functional toilet for a total of one or two occupants, and one additional room with a functional toilet if there are a total of three or four occupants.

(b) *Construction of toilet rooms.* Each toilet room must occupy a separate compartment with a door that latches and have walls or partitions between fixtures sufficient to assure privacy.

(c) *Supplies and sanitation.* (1) An adequate supply of toilet paper must be provided in each toilet room, unless provided to the occupants individually.

(2) Each toilet must be kept in a clean and sanitary condition and cleaned regularly when the camp car is being used. In the case of a non-water carriage toilet facility, it must be cleaned and changed regularly when the camp car is being used.

(d) *Sewage disposal facilities.* (1) All sanitary sewer lines and floor drains from a camp car toilet facility must be connected to a public sewer where available and practical, unless the car is equipped with a holding tank that is emptied in a sanitary manner.

(2) The sewage disposal method must not endanger the health of occupants.

(3) For toilet facilities connected to a holding tank, the tank must be constructed in a manner that prevents vermin from entry and odors from escaping into the camp car.

**§ 228.319 Lavatories.**

(a) *Number.* Each camp car that provides a sleeping facility must contain at least one functioning lavatory for a total of one or two occupants and an additional functional lavatory if there is a total of three or four occupants.

(b) *Water.* Each lavatory must be provided with hot and cold potable running water. The water supplied to a lavatory must be from a potable water source supplied through a system maintained as required in § 228.323.

**49 CFR Ch. II (10–1–12 Edition)**

(c) *Soap.* Unless otherwise provided by a collective bargaining agreement, hand soap or similar cleansing agents must be provided.

(d) *Means of drying.* Unless otherwise provided by a collective bargaining agreement, individual hand towels, of cloth or paper, warm air blowers, or clean sections of continuous cloth toweling must be provided near the lavatories.

**§ 228.321 Showering facilities.**

(a) *Number.* Each individual camp car that provides sleeping facilities must contain a minimum of one shower for a total of one or two occupants and an additional functional shower if the camp car contains a total of three or four occupants.

(b) *Floors.* (1) Shower floors must be constructed of non-slippery materials;

(2) Floor drains must be provided in all shower baths and shower rooms to remove waste water and facilitate cleaning;

(3) All junctions of the curbing and the floor must be sealed; and

(4) There shall be no fixed grate or other instrument on the shower floor significantly hindering the cleaning of the shower floor or drain.

(c) *Walls and partitions.* The walls and partitions of a shower room must be smooth and impervious to the height of splash.

(d) *Water.* An adequate supply of hot and cold running potable water must be provided for showering purposes. The water supplied to a shower must be from a potable water source supplied through a system maintained as required in § 228.323.

(e) *Showering necessities.* (1) Unless otherwise provided by a collective bargaining agreement, body soap or other appropriate cleansing agent convenient to the showers must be provided.

(2) Showers must be provided with hot and cold water feeding a common discharge line.

(3) Unless otherwise provided by a collective bargaining agreement, each occupant who uses a shower must be provided with an individual clean towel.

**§ 228.323 Potable water.**

(a) *General requirements.* (1) Potable water shall be adequately and conveniently provided to all occupants of a camp car for drinking, personal oral hygiene, washing of person, cooking, washing of foods, washing of cooking or eating utensils, and washing of premises for food preparation or processing.

(2) Open containers such as barrels, pails, or tanks for drinking water from which the water must be dipped or poured, whether or not they are fitted with a cover, are prohibited.

(3) A common drinking cup and other common utensils are prohibited.

(b) *Potable water source.* (1) If potable water is provided in bottled form, it shall be stored in a manner recommended by the supplier in order to prevent contamination in storage. Bottled water shall not be provided as a substitute for the hot and cold running potable water required to be supplied in lavatories, showers, and sinks under this section. Bottled water shall contain a label identifying the packager and the source of the water.

(2) If potable water is drawn from a local source, the source must meet the drinking water standards established by the U.S. Environmental Protection Agency under 40 CFR part 141, National Primary Drinking Water Regulations.

(3) All equipment and construction used for supplying potable water to a camp car water system (*e.g.*, a hose, nozzle, or back-flow prevention) shall be approved by the Food and Drug Administration.

(4) *Water hydrants.* Each water hydrant, hose, or nozzle used for supplying potable water to a camp car water system shall be inspected prior to use. Each such hose or nozzle used shall be cleaned and sanitized as part of the inspection. A signed, dated record of this inspection shall be kept within the camp for the period of the connection. When the connection is terminated, a copy of each of these records must be submitted promptly to a centralized location for the railroad and maintained for one year from the date the connection was terminated.

(5) *Training.* Only a trained individual is permitted to fill the potable water systems. Each individual who fills a po-

table water system shall be trained in—

(i) The approved method of inspecting, cleaning, and sanitizing hydrants, hoses, and nozzles used for filling potable water systems; and

(ii) The approved procedures to prevent contamination during watering.

(6) *Certification.* Each time that potable water is drawn from a different local source, the railroad shall obtain a certificate from a State or local health authority indicating that the water from this source is of a quality not less than that prescribed in 40 CFR part 141, National Primary Drinking Water Regulations promulgated by the U.S. Environmental Protection Agency, or obtain such a certificate by a certified laboratory following testing for compliance with those standards. The current certification shall be kept within the camp for the duration of the connection. When the connection is terminated, a copy of each of these records must be submitted promptly to a centralized location for the railroad and maintained for one year from the date the connection was terminated.

(c) *Storage and distribution system.* (1) *Storage.* Potable water shall be stored in sanitary containers that prevent external contaminants from entering the potable water supply. Such contaminants include biological agents or materials and substances that can alter the taste or color or are toxic.

(2) *Dispensers.* Potable drinking water dispensers shall be designed, constructed, and serviced so that sanitary conditions are maintained, must be capable of being closed, and shall be equipped with a tap.

(3) *Distribution lines.* The distribution lines must be capable of supplying water at sufficient operating pressures to all taps for normal simultaneous operation.

(4) *Flushing.* Each potable water system shall be drained and flushed with a disinfecting solution at least once every 120 days. The railroad shall maintain a record of the draining and flushing of each separate system within the camp for the last two drain and flush cycles. The record shall contain the date of the work and the name(s) of the individual(s) performing the work.

**§ 228.325**

**49 CFR Ch. II (10–1–12 Edition)**

The original record shall be maintained with the camp. A copy of each of these records shall be sent to a centralized location for the railroad and maintained for one year.

(i) The solution used for flushing and disinfection shall be a 100 parts per million by volume (ppm) chlorine solution.

(ii) The chlorine solution shall be held for one hour in all parts of the system to ensure disinfection.

(iii) The chlorine solution shall be purged from the system by a complete refilling and draining with fresh potable water.

(iv) The draining and flushing shall be done more frequently if an occupant reports a taste or health problem associated with the water, or following any plumbing repair.

(5) *Reported problems.* Following any report of a taste problem with the water from a system or a health problem resulting from the water in a system, samples of water from each tap or dispensing location on the system shall be collected and sent to a laboratory approved by the U.S. Environmental Protection Agency for testing for heterotrophic plate counts, total coliform, and fecal coliform. If a single sample fails any of these tests, the system must be treated as follows:

(i) Heterotrophic plate count. Drain and flush the system within two days, and then return it to service.

(ii) Total coliform. Remove the system from service, drain and flush system, resample the system, and then return the system to service.

(iii) Fecal coliform. Remove the system from service, drain and flush the system, resample the system, and do not return the system to service until a satisfactory result on the test of the samples is obtained from the laboratory.

(6) *Reports.* All laboratory reports pertaining to the water system of the camp car shall be maintained with the car. Within 15 days of the receipt of such a laboratory report, a copy of the report shall be posted for a minimum of 10 calendar days at a conspicuous location within the camp car or cars affected for review by occupants. The report shall be maintained in the camp for the duration of the same connection.

When the connection is terminated, the certification must be submitted promptly to a centralized location for the railroad and maintained for one year from the date the connection was terminated.

(d) *Signage.* Any water outlet/faucet within the camp car facility that supplies water not from a potable source or that is from a potable source but supplied through a system that is not maintained as required in this section, the outlet/faucet must be labeled with a sign, visible to the user and bearing a message to the following effect: “The water is not suitable for human consumption. Do not drink the water.”

**§ 228.325 Food service in a camp car or separate kitchen or dining facility in a camp.**

(a) *Sanitary storage.* No food or beverage may be stored in a toilet room or in an area exposed to a toxic material.

(b) *Consumption of food or beverage on the premises.* No occupant shall be allowed to consume a food or beverage in a toilet room or in any area exposed to a toxic material.

(c) *Kitchens, dining halls, and feeding facilities.* (1) In each camp car where central dining operations are provided by the railroad or its contractor(s) or subcontractor(s), the food handling facilities shall be maintained in a clean and sanitary condition. See § 228.323, Potable water, generally.

(i) All surfaces used for food preparation shall be disinfected after each use.

(ii) The disinfection process shall include removal of chemical disinfectants that would adulterate foods prepared subsequent to disinfection.

(2) All perishable food shall be stored either under refrigeration or in a freezer. Refrigeration and freezer facilities shall be provided with a means to monitor temperature to ensure proper temperatures are maintained. The temperature of refrigerators shall be maintained at 40 °F or below; the temperature of freezers shall be maintained at 0 °F or below at all times.

(3) All non-perishable food shall be stored to prevent vermin and insect infestation.

(4) All food waste disposal containers shall be constructed to prevent vermin and insect infestation.

(i) All food waste disposal containers used within a camp car shall be emptied after each meal, or at least every four hours, whichever period is less.

(ii) All food waste disposal containers used outside a camp car shall be located to prevent offensive odors from entering the sleeping quarters.

(iii) All kitchen area camp car sinks used for food washing and preparation and all kitchen area floor drains shall be connected to a public sewer where available and practicable, unless the car is equipped with a holding tank that is emptied in a sanitary manner. For kitchen area sinks and floor drains identified in this paragraph (c)(4)(iii) connected to a holding tank, the tank must be constructed in a manner that prevents vermin from entry into the tank or odors from escaping into any camp car.

(iv) The sewage disposal method must not endanger the health of occupants.

(5) When a separate kitchen or dining hall car is provided, there must be a closeable door between the living or sleeping quarters into a kitchen or dining hall car.

(d) *Food handling.* (1) All food service facilities and operations for occupants of a camp car by the railroad or its contractor(s) or subcontractor(s) shall be carried out in accordance with sound hygienic principles. In all places of employment where all or part of the food service is provided, the food dispensed must be wholesome, free from spoilage, and must be processed, prepared, handled, and stored in such a manner as to be protected against contamination. See § 228.323, Potable water, generally.

(2) No person with any disease communicable through contact with food or a food preparation item may be employed or permitted to work in the preparation, cooking, serving, or other handling of food, foodstuffs, or a material used therein, in a kitchen or dining facility operated in or in connection with a camp car.

(e) The limitations of paragraphs (c) and (d) of this section do not apply to food service from restaurants near the camp car consist that are subject to State law.

#### § 228.327 Waste collection and disposal.

(a) *General disposal requirements.* All sweepings, solid or liquid wastes, refuse, and garbage in a camp must be removed in such a manner as to avoid creating a menace to health and as often as necessary or appropriate to maintain a sanitary condition.

(b) *General waste receptacles.* Any exterior receptacle used for putrescible solid or liquid waste or refuse in a camp shall be so constructed that it does not leak and may be thoroughly cleaned and maintained in a sanitary condition. Such a receptacle must be equipped with a solid tight-fitting cover, unless it can be maintained in a sanitary condition without a cover. This requirement does not prohibit the use of receptacles designed to permit the maintenance of a sanitary condition without regard to the aforementioned requirements.

(c) *Food waste disposal containers provided for the interior of camp cars.* An adequate number of receptacles constructed of smooth, corrosion resistant, easily cleanable, or disposable materials, must be provided and used for the disposal of waste food. Receptacles must be provided with a solid, tight-fitting cover unless sanitary conditions can be maintained without use of a cover. The number, size, and location of such receptacles must encourage their use and not result in overfilling. They must be emptied regularly and maintained in a clean, safe, and sanitary condition.

#### § 228.329 Housekeeping.

(a) A camp car must be kept clean to the extent allowed by the nature of the work performed by the occupants of the camp car.

(b) To facilitate cleaning, every floor, working place, and passageway must be kept free from protruding nails, splinters, loose boards, and unnecessary holes and openings.

#### § 228.331 First aid and life safety.

(a) An adequate first aid kit must be maintained and made available for occupants of a camp car for the emergency treatment of an injured person.

**§ 228.333**

(b) The contents of the first aid kit shall be placed in a weatherproof container with individual sealed packages for each type of item, and shall be checked at least weekly when the camp car is occupied to ensure that the expended items are replaced. The first aid kit shall contain, at a minimum, the following:

- (1) Two small gauze pads (at least 4 x 4 inches);
- (2) Two large gauze pads (at least 8 x 10 inches);
- (3) Two adhesive bandages;
- (4) Two triangular bandages;
- (5) One package of gauge roller bandage that is at least 2 inches wide;
- (6) Wound cleaning agent, such as sealed moistened towelettes;
- (7) One pair of scissors;
- (8) One set of tweezers;
- (9) One roll of adhesive tape;
- (10) Two pairs of latex gloves; and
- (11) One resuscitation mask.

(c) Each sleeping room shall be equipped with the following:

- (1) A functional portable Type ABC fire extinguisher; and
- (2) Either a functional smoke alarm and a carbon monoxide alarm, or a functional combined smoke-carbon-monoxide alarm.

(d) Each camp car consist shall have an emergency preparedness plan prominently displayed so all occupants of the camp car consist can view it at their convenience. The plan shall address the following subjects for each location where the camp car consist is used to house railroad employees or MOW workers:

- (1) The means used to be aware of and notify all occupants of impending weather threats, including thunderstorms, tornados, hurricanes, floods, and other major weather-related risks;
- (2) Shelter-in-place and emergency and evacuation instructions for each of the specific threats identified; and
- (3) The address and telephone number of the nearest emergency medical facility and directions on how to get there from the camp car consist.

**§ 228.333 Remedial action.**

A railroad shall, within 24 hours after receiving a good faith notice from a camp car occupant or an employee labor organization representing camp

**49 CFR Ch. II (10–1–12 Edition)**

car occupants or notice from a Federal Railroad Administration inspector, including a certified State inspector under part 212 of this chapter, of non-compliance with this subpart, correct each non-complying condition on the camp car or cease use of the camp car as sleeping quarters for each occupant. In the event that such a condition affects the safety or health of an occupant, such as, but not limited to, water, cooling, heating, or eating facilities, sanitation issues related to food storage, food handling or sewage disposal, vermin or pest infestation, or electrical hazards, the railroad must immediately upon notice provide alternative arrangements for housing and providing food to the employee or MOW worker until the condition adverse to the safety or health of the occupant(s) is corrected.

**§ 228.335 Electronic recordkeeping.**

(a) Each railroad shall keep records as required by § 228.323 either—

- (1) On paper forms provided by the railroad, or
- (2) By electronic means that conform with the requirements of subpart D of this part.

(b) Records required to be kept shall be made available to the Federal Railroad Administration as provided by 49 U.S.C. 20107.

**Subpart F—Substantive Hours of Service Requirements for Train Employees Engaged in Commuter or Intercity Rail Passenger Transportation**

SOURCE: 76 FR 50397, Aug. 12, 2011, unless otherwise noted.

**§ 228.401 Applicability.**

(a) Except as provided in paragraph (b) of this section, the requirements of this subpart apply to railroads and their officers and agents, with respect to their train employees who are engaged in commuter or intercity rail passenger transportation, including train employees who are engaged in tourist, scenic, historic, or excursion rail passenger transportation.

(b) This subpart does not apply to rapid transit operations in an urban

area that are not connected with the general railroad system of transportation.

**§ 228.403 Nonapplication, exemption, and definitions.**

(a) *General.* This subpart does not apply to a situation involving any of the following:

- (1) A casualty;
- (2) An unavoidable accident;
- (3) An act of God; or

(4) A delay resulting from a cause unknown and unforeseeable to a railroad or its officer or agent in charge of the employee when the employee left a terminal.

(b) *Exemption.* The Administrator may exempt a railroad having not more than a total of 15 train employees, signal employees, and dispatching service employees from the limitations imposed by this subpart on the railroad's train employees who are engaged in commuter or intercity rail passenger transportation. The Administrator may allow the exemption from this subpart after a full hearing, for good cause shown, and on deciding that the exemption is in the public interest and will not affect safety adversely. The exemption shall be for a specific period of time and is subject to review at least annually. The exemption may not authorize a railroad to require or allow its train employees to be on duty more than a total of 16 hours in a 24-hour period.

(c) *Definitions.* In this subpart—

*Commuter or intercity rail passenger transportation* has the meaning assigned by section 24102 of title 49, United States Code, to the terms “commuter rail passenger transportation” or “intercity rail passenger transportation.”

*Train employee who is engaged in commuter or intercity rail passenger transportation* includes a train employee who is engaged in commuter or intercity rail passenger transportation regardless of the nature of the entity by whom the employee is employed and any other train employee who is employed by a commuter railroad or an intercity passenger railroad. The term excludes a train employee of another type of railroad who is engaged in work train service even though that work train service

might be related to providing commuter or intercity rail passenger transportation, and a train employee of another type of railroad who serves as a pilot on a train operated by a commuter railroad or intercity passenger railroad.

**§ 228.405 Limitations on duty hours of train employees engaged in commuter or intercity rail passenger transportation.**

(a) *General.* Except as provided in paragraph (c) of this section, a railroad and its officers and agents may not require or allow a train employee engaged in commuter or intercity rail passenger transportation to remain or go on duty—

(1) Unless that employee has had at least 8 consecutive hours off duty during the prior 24 hours; or

(2) After that employee has been on duty for 12 consecutive hours, until that employee has had at least 10 consecutive hours off duty; or

(3) In a series of at most 14 consecutive calendar days, in excess of the following limitations:

(i) That employee's first series of at most 14 consecutive calendar days begins on the first calendar day that the employee initiates an on-duty period on or after the compliance date for this paragraph (a)(3), as specified in § 228.413. A series of at most 14 consecutive calendar days either ends on the 14th consecutive day or may last for less than 14 days if an employee has accumulated a total of two calendar days on which the employee has not initiated an on-duty period before the beginning of the 14th day of the series. After the employee has accumulated a total of two calendar days on which the employee has not initiated an on-duty period, including at least 24 consecutive hours off duty as required by paragraph (a)(3)(ii) or two consecutive calendar days without initiating an on-duty period as required by paragraph (a)(3)(iii) of this section, during the employee's current series of at most 14 consecutive calendar days, a new series of at most 14 consecutive calendar days begins on the calendar day in which the employee next initiates an on-duty period. Only calendar days after the

starting date of a series are counted toward the accumulation of a total of two calendar days on which the employee did not initiate an on-duty period. A calendar day on which an on-duty period was not initiated that occurred prior to the start of the new series, does not count toward refreshing the new series.

(ii) If the employee initiates an on-duty period each day on any six or more consecutive calendar days during the series of at most 14 consecutive calendar days, and at least one of the on-duty periods is defined as a Type 2 assignment, that employee must have at least 24 consecutive hours off duty prior to next initiating an on-duty period, except as provided in paragraph (a)(3)(v) of this section.

(iii) If the employee has initiated an on-duty period each day on 13 or more calendar days in the series of at most 14 consecutive calendar days, that employee must have at least two consecutive calendar days on which the employee does not initiate an on-duty period prior to next initiating an on-duty period, except as provided in paragraph (a)(3)(v) of this section.

(iv) The minimum time off duty required by paragraph (a)(3)(ii) of this section and the at least two consecutive calendar days in which the employee does not initiate an on-duty period required by paragraph (a)(3)(iii) of this section must be at the employee's home terminal, and during such periods, the employee shall be unavailable for any service for any railroad.

(v) Paragraphs (a)(3)(ii)–(iii) of this section notwithstanding, if the employee is not at the employee's home terminal when time off duty is required by paragraph (a)(3)(ii) of this section or calendar days in which the employee does not initiate an on-duty period are required by paragraph (a)(3)(iii) of this section, the employee may either deadhead to the point of final release at the employee's home terminal or initiate an on-duty period in order to return to the employee's home terminal either on the same calendar day or the next consecutive calendar day after the completion of the duty tour triggering the requirements of paragraph (a)(3)(ii) or paragraph (a)(3)(iii) of this section.

(vi) If the employee is required to have at least 24 consecutive hours off duty under paragraph (a)(3)(ii) of this section and not to initiate an on-duty period for at least two consecutive calendar days under paragraph (a)(3)(iii) of this section, both requirements shall be observed. The required periods run concurrently, to the extent that they overlap.

(b) *Determining time on duty.* In determining under paragraph (a) of this section the time that a train employee subject to this subpart is on or off duty, the following rules apply:

(1) Time on duty begins when the employee reports for duty and ends when the employee is finally released from duty;

(2) Time the employee is engaged in or connected with the movement of a train is time on duty;

(3) Time spent performing any other service for the railroad during a 24-hour period in which the employee is engaged in or connected with the movement of a train is time on duty;

(4) Time spent in deadhead transportation to a duty assignment is time on duty, but time spent in deadhead transportation from a duty assignment to the place of final release is neither time on duty nor time off duty;

(5) An interim period available for rest at a place other than a designated terminal is time on duty;

(6) An interim period available for less than four hours rest at a designated terminal is time on duty; and

(7) An interim period available for at least four hours rest at a place with suitable facilities for food and lodging is not time on duty when the employee is prevented from getting to the employee's designated terminal by any of the following:

(i) A casualty;

(ii) A track obstruction;

(iii) An act of God; or

(iv) A derailment or major equipment failure resulting from a cause that was unknown and unforeseeable to the railroad or its officer or agent in charge of that employee when that employee left the designated terminal.

(c) *Emergencies.* A train employee subject to this subpart who is on the crew of a wreck or relief train may be allowed to remain or go on duty for not

more than four additional hours in any period of 24 consecutive hours when an emergency exists and the work of the crew is related to the emergency. In this paragraph, an emergency ends when the track is cleared and the railroad line is open for traffic.

**§ 228.407 Analysis of work schedules; submissions; FRA review and approval of submissions; fatigue mitigation plans.**

(a) *Analysis of work schedules.* Each railroad subject to this subpart must perform an analysis of one cycle of the work schedules (the period within which the work schedule repeats) of its train employees engaged in commuter or intercity rail passenger transportation and identify those work schedules intended to be assigned to its train employees, that, if worked by such a train employee, put the train employee at risk for a level of fatigue at which safety may be compromised. Schedules identified in paragraph (g) of this section do not have to be analyzed. A level of fatigue at which safety may be compromised, hereafter called “the fatigue threshold,” shall be determined by procedures that use a scientifically valid, biomathematical model of human performance and fatigue that has been approved by the Associate Administrator pursuant to paragraph (c)(1) of this section, or previously accepted pursuant to paragraph (c)(2) of this section. Each work schedule that violates the fatigue threshold must be—

(1) Reported to the Associate Administrator as provided in paragraph (b) of this section, no later than April 12, 2012;

(2) Either—

(i) Mitigated by action in compliance with the railroad’s fatigue mitigation plan that has been approved by the Associate Administrator as specified in paragraph (b) of this section, no later than April 12, 2012; or

(ii) Supported by a determination that the schedule is operationally necessary, and that the fatigue risk cannot be sufficiently mitigated by the use of fatigue mitigation tools to reduce the risk for fatigue to a level that does not violate the fatigue threshold, no later than April 12, 2012; or

(iii) Both, no later than April 12, 2012; and

(3) Approved by FRA for use in accordance with paragraph (b) of this section.

(b) *Submissions of certain work schedules and any fatigue mitigation plans and determinations of operational necessity or declarations; FRA review and approval.*

(1) No later than April 12, 2012, the railroad shall submit for approval to the Associate Administrator the work schedules described in paragraph (b)(1)(i) and (ii) of this section. The railroad shall identify and group the work schedules as follows:

(i) Work schedules that the railroad has found, using a validated model (as specified in paragraph (c)(1) of this section or approved by FRA in accordance with paragraph (c)(2) of this section) to present a risk for a level of fatigue that violates the applicable fatigue threshold, but that the railroad has determined can be mitigated by the use of fatigue mitigation tools so as to present a risk for a level of fatigue that does not violate the applicable fatigue threshold. The fatigue mitigation tools that will be used to mitigate the fatigue risk presented by the schedule must also be submitted.

(ii) Work schedules that the railroad has found, using a validated model (as specified in paragraph (c)(1) of this section or approved by FRA in accordance with paragraph (c)(2) of this section), to present a risk for a level of fatigue that violates the applicable fatigue threshold, but that the railroad has determined cannot be mitigated so as to present a risk for a level of fatigue that does not violate the applicable fatigue threshold by the use of fatigue mitigation tools, and that the railroad has determined are operationally necessary. The basis for the determination must also be submitted.

(2) If a railroad performs the analysis of its schedules required by paragraph (a) of this section, and determines that none of them violates the applicable fatigue threshold, and therefore none of them presents a risk for fatigue that requires it to be submitted to the Associate Administrator pursuant to this paragraph, that railroad shall, no later

than April 12, 2012, submit to the Associate Administrator a written declaration, signed by an officer of the railroad, that the railroad has performed the required analysis and determined that it has no schedule that is required to be submitted.

(3) FRA will review submitted work schedules, proposed fatigue mitigation tools, and determinations of operational necessity. If FRA identifies any exceptions to the submitted information, the agency will notify the railroad within 120 days of receipt of the railroad's submission. Railroads are required to correct any deficiencies identified by FRA within the time frame specified by FRA.

(4) FRA will audit railroad work schedules and fatigue mitigation tools every two years to ensure compliance with this section.

(c) *Submission of models for FRA approval; validated models already accepted by FRA.* (1) If a railroad subject to this subpart wishes to use a model of human performance and fatigue, not previously approved by FRA, for the purpose of making part or all of the analysis required by paragraph (a) or (d) of this section, the railroad shall submit the model and evidence in support of its scientific validation, for the approval of the Associate Administrator. Decisions of the Associate Administrator regarding the validity of a model are subject to review under § 211.55 of this chapter.

(2) A railroad may use a model that is already accepted by FRA. FRA has approved the Fatigue Avoidance Scheduling Tool™ (FAST) issued on July 15, 2009, by Fatigue Science, Inc. (with a fatigue threshold for the purpose of this regulation less than or equal to 70 for 20 percent or more of the time worked in a duty tour), and Fatigue Audit InterDyne™ (FAID) version 2, issued in September 2007 by InterDynamics Pty Ltd. (Australian Company Number (ACN) 057 037 635) (with a fatigue threshold for the purpose of this regulation greater than or equal to 72 for 20 percent or more of the time worked in a duty tour) as scientifically valid, biomathematical models of human performance and fatigue for the purpose of making the analysis required by paragraph (a) or (d) of this

section. Other versions of the models identified in this paragraph must be submitted to FRA for approval prior to use as provided by paragraph (c)(1) of this section.

(3) If a new model is submitted to FRA for approval, pursuant to paragraph (c)(1) of this section, FRA will publish notice of the submission in the FEDERAL REGISTER, and will provide an opportunity for comment, prior to the Associate Administrator's making a final determination as to its disposition. If the Associate Administrator approves a new model as having been validated and calibrated, so that it can be used for schedule analysis in compliance with this regulation, FRA will also publish notice of this determination in the FEDERAL REGISTER.

(d) *Analysis of certain later changes in work schedules.* (1) Additional follow-up analysis must be performed each time that the railroad changes one of its work schedules in a manner—

(i) That would differ from the FRA-approved parameters for hours of duty of any work schedule previously analyzed pursuant to paragraph (a) of this section; or

(ii) That would alter the work schedule to the extent that train employees who work the schedule may be at risk of experiencing a level of fatigue that violates the FRA-approved fatigue threshold established by paragraph (a) of this section.

(2) Such additional follow-up analysis must be submitted for FRA approval as provided under paragraph (b) of this section, as soon as practicable, prior to the use of the new schedule for an employee subject to this subpart. FRA approval is not necessary before a new schedule may be used; however, a schedule that has been disapproved by FRA may not be used.

(3) FRA will review submitted revised work schedules, and any accompanying fatigue mitigation tools, and determinations of operational necessity. If FRA identifies any exceptions to the submitted information, the agency will notify the railroad as soon as possible. Railroads are required to correct any deficiencies identified by FRA within the time frame specified by FRA.

(e) *Fatigue mitigation plans.* A written plan must be developed and adopted by

the railroad to mitigate the potential for fatigue for any work schedule identified through the analysis required by paragraph (a) or (d) of this section as at risk, including potential fatigue caused by unscheduled work assignments. Compliance with the fatigue mitigation plan is mandatory. The railroad shall review and, if necessary, update the plan at least once every two years after adopting the plan.

(f) *Consultation.* (1) Each railroad subject to this subpart shall consult with, employ good faith, and use its best efforts to reach agreement with, all of its directly affected employees, including any nonprofit employee labor organization representing a class or craft of directly affected employees of the railroad, on the following subjects:

(i) The railroad's review of work schedules found to be at risk for a level of fatigue at which safety may be compromised (as described by paragraph (a) of this section);

(ii) The railroad's selection of appropriate fatigue mitigation tools; and

(iii) All submissions by the railroad to the Associate Administrator for approval that are required by this section.

(2) For purposes of this section, the term "directly affected employee" means an employee to whom one of the work schedules applies or would apply if approved.

(3) If the railroad and its directly affected employees, including any nonprofit employee labor organization representing a class or craft of directly affected employees of the railroad, cannot reach consensus on any area described in paragraph (f)(1) of this section, then directly affected employees and any such organization may file a statement with the Associate Administrator explaining their views on any issue on which consensus was not reached. The Associate Administrator shall consider such views during review and approval of items required by this section.

(g) *Schedules not requiring analysis.* The types of schedules described in paragraphs (1) and (2) of this paragraph do not require the analysis described in paragraphs (a) or (d) of this section.

(1) Schedules consisting solely of Type 1 assignments do not have to be analyzed.

(2) Schedules containing Type 2 assignments do not have to be analyzed if—

(i) The Type 2 assignment is no longer in duration than, and fully contained within, the schedule of another Type 2 assignment that has already been determined to present an acceptable level of risk for fatigue that does not violate the fatigue threshold; and

(ii) If the longer Type 2 schedule within which another Type 2 schedule is contained requires mitigations to be applied in order to achieve an acceptable level of risk for fatigue that does not violate the fatigue threshold, the same or more effective mitigations must be applied to the shorter Type 2 schedule that is fully contained within the already acceptable Type 2 schedule.

**§ 228.409 Requirements for railroad-provided employee sleeping quarters during interim releases and other periods available for rest within a duty tour.**

(a) If a railroad subject to this subpart provides sleeping quarters for the use of a train employee subject to this subpart during interim periods of release as a method of mitigating fatigue identified by the analysis of work schedules required by § 228.407(a) and (d), such sleeping quarters must be "clean, safe, and sanitary," and give the employee "an opportunity for rest free from the interruptions caused by noise under the control of the" railroad within the meaning of section 21106(a)(1) of title 49 of the United States Code.

(b) Any sleeping quarters provided by a railroad that are proposed as a fatigue mitigation tool pursuant to § 228.407(b)(1)(i), are subject to the requirements of § 228.407(f), Consultation.

**§ 228.411 Training.**

(a) *Individuals to be trained.* Except as provided by paragraph (f) of this section, each railroad subject to this subpart shall provide training for its employees subject to this subpart, and the immediate supervisors of its employees subject to this subpart.

## § 228.413

(b) *Subjects to be covered.* The training shall provide, at a minimum, information on the following subjects that is based on the most current available scientific and medical research literature:

(1) Physiological and human factors that affect fatigue, as well as strategies to reduce or mitigate the effects of fatigue;

(2) Opportunities for identification, diagnosis, and treatment of any medical condition that may affect alertness or fatigue, including sleep disorders;

(3) Alertness strategies, such as policies on napping, to address acute drowsiness and fatigue while an employee is on duty;

(4) Opportunities to obtain restful sleep at lodging facilities, including employee sleeping quarters provided by the railroad; and

(5) The effects of abrupt changes in rest cycles for employees.

(c) *Timing of initial training.* Initial training shall be provided to affected current employees not later than December 31, 2012, and to new employees subject to this subpart before the employee first works a schedule subject to analysis under this subpart, or not later than December 31, 2012, whichever occurs later.

(d) *Timing of refresher training.* (1) At a minimum, refresher training shall be provided every three calendar years.

(2) Additional refresher training shall also be provided when significant changes are made to the railroad's fatigue mitigation plan or to the available fatigue mitigation tools applied to an employee's assignment or assignments at the location where he or she works.

(e) *Records of training.* A railroad shall maintain a record of each employee provided training in compliance with this section and shall retain these records for three years.

(f) *Conditional exclusion.* A railroad engaged in tourist, scenic, historic, or excursion rail passenger transportation, may be excluded from the requirements of this section, if its train employees subject to this rule are assigned to work only schedules wholly within the hours of 4 a.m. and 8 p.m. on the same calendar day that comply

## 49 CFR Ch. II (10–1–12 Edition)

with the provisions of § 228.405, upon that railroad's submission to the Associate Administrator of a written declaration, signed by an officer of the railroad, indicating that the railroad meets the limitations established in this paragraph.

### § 228.413 Compliance date for regulations; exemption from compliance with statute.

(a) *General.* Except as provided by paragraph (d) of this section or as provided in § 228.411, on and after April 12, 2012, railroads subject to this subpart shall comply with this subpart and §§ 228.11(c)(1)–(2) and 228.19(c)(5)–(c)(8) with respect to their train employees who are engaged in commuter or inter-city rail passenger transportation.

(b) *Exemption from compliance with statute.* On and after October 15, 2011, railroads subject to this subpart or any provision of this subpart shall be exempt from complying with the provisions of old section 21103 and new section 21103 for such employees.

(c) *Definitions.* In this section—

(1) The term “new section 21103” means section 21103 of title 49, United States Code, as amended by the Rail Safety Improvement Act of 2008 (RSIA) effective July 16, 2009.

(2) The term “old section 21103” means section 21103 of title 49, United States Code, as it was in effect on the day before the enactment of the RSIA.

(d) *Exceptions.* (1) On and after October 15, 2011, railroads subject to this subpart shall comply with §§ 228.401, 228.403, 228.405(a)(1), (a)(2), (b), and (c), and 228.409(a).

(2) Railroads engaged in tourist, scenic, historic, or excursion rail passenger transportation, subject to this subpart, must comply with the sections listed in paragraph (d)(1) of this section on and after October 15, 2011, but are not required to comply with the other provisions of this subpart and §§ 228.11(c)(1)–(2) and 228.19(c)(5)–(c)(8) until April 12, 2013.

APPENDIX A TO PART 228—REQUIREMENTS OF THE HOURS OF SERVICE ACT: STATEMENT OF AGENCY POLICY AND INTERPRETATION

First enacted in 1907, the Hours of Service Act was substantially revised in 1969 by Public Law 91-169. Further amendments were enacted as part of the Federal Railroad Safety Authorization Act of 1976, Public Law 94-348 and by the Rail Safety Improvement Act of 1988, Public Law 100-342. The purpose of the law is "to promote the safety of employees and travelers upon railroads by limiting the hours of service of employees \* \* \*." This appendix is designed to explain the effect of the law in commonly-encountered situations.

The Act governs the maximum work hours of employees engaged in one or more of the basic categories of covered service treated below. If an individual performs more than one kind of covered service during a tour of duty, then the most restrictive of the applicable limitations control.

The act applies to any railroad, as that term is defined in 45 U.S.C. 431(e). It governs the carrier's operations over its own railroad and all lines of road which it uses.

TRAIN AND ENGINE SERVICE

*Covered Service.* Train or engine service refers to the actual assembling or operation of trains. Employees who perform this type of service commonly include locomotive engineers, firemen, conductors, trainmen, switchmen, switchtenders (unless their duties come under the provisions of section 3) and hostlers. With the passage of the 1976 amendments, both inside and outside hostlers are considered to be connected with the movement of trains. Previously, only outside hostlers were covered. Any other employee who is actually engaged in or connected with the movement of any train is also covered, regardless of his job title.

*Limitations on Hours.* The Act establishes two limitations on hours of service. First, no employee engaged in train or engine service may be required or permitted to work in excess of twelve consecutive hours. After working a full twelve consecutive hours, an employee must be given at least ten consecutive hours off duty before being permitted to return to work.

Second, no employee engaged in train or engine service may be required or permitted to continue on duty or go on duty unless he has had at least eight consecutive hours off duty within the preceding twenty-four hours. This latter limitation, when read in conjunction with the requirements with respect to computation of duty time (discussed below) results in several conclusions:

(1) When an employee's work tour is broken or interrupted by a valid period of interim release (4 hours or more at a des-

ignated terminal), he may return to duty for the balance of the total 12-hour work tour during a 24-hour period.

(2) After completing the 12 hours of broken duty, or at the end of the 24-hour period, whichever occurs first, the employee may not be required or permitted to continue on duty or to go on duty until he has had at least 8 consecutive hours off duty.

(3) The 24-hour period referred to in paragraphs 1 and 2 above shall begin upon the commencement of a work tour by the employee immediately after his having received a statutory off-duty period of 8 or 10 hours as appropriate.

*Duty time and effective periods of release.* On-duty time commences when an employee reports at the time and place specified by the railroad and terminates when the employee is finally released of all responsibilities. (Time spent in deadhead transportation to a duty assignment is also counted as time on duty. See discussion below.) Any period available for rest that is of four or more hours and is at a designated terminal is off-duty time. All other periods available for rest must be counted as time on duty under the law, regardless of their duration.

The term "designated terminal" means a terminal (1) which is designated in or under a collective bargaining agreement as the "home" or "away-from-home" terminal for a particular crew assignment and (2) which has suitable facilities for food and lodging. Carrier and union representatives may agree to establish additional designated terminals having such facilities as points of effective release under the Act. Agreements to designate additional terminals for purposes of release under the Act should be reduced to writing and should make reference to the particular assignments affected and to the Hours of Service Act. The following are common situations illustrating the designated terminal concept:

(1) A freight or passenger road crew operates a train from home terminal "A" to away-from-home terminal "B" (or the reverse). Terminals "A" and "B" would normally be the designated terminals for this specific crew assignment. However, carrier and employee representatives may agree to designate additional terminals having suitable facilities for food and lodging as appropriate points of release under the Hours of Service Act.

(2) A road crew operates a train in turn-around service from home terminal "A" to turn-around point "B" and back to "A". Terminal "A" is the only designated terminal for this specific crew assignment, unless carrier and employee representatives have agreed to designate additional terminals having suitable facilities for food and lodging.

(3) A crew is assigned to operate a maintenance-of-way work train from home terminal "A", work on line of road and tie up for rest along the line of road at point "B". Home terminal "A" and tie-up point "B" both qualify as designated terminals for this specific work train crew assignment. Of course, suitable facilities for food and lodging must be available at tie-up point "B".

*Deadheading.* Under the Act time spent in deadhead transportation receives special treatment. Time spent in deadhead transportation to a duty assignment by a train or engine service employee is considered on-duty time. Time spent in deadhead transportation from the final duty assignment of the work tour to the point of final release is not computed as either time on duty or time off duty. Thus, the period of deadhead transportation to point of final release may not be included in the required 8- or 10-hour off-duty period. Time spent in deadhead transportation to a duty assignment is calculated from the time the employee reports for deadhead until he reaches his duty assignment.

All time spent awaiting the arrival of a deadhead vehicle for transportation from the final duty assignment of the work tour to the point of final release is considered limbo time, *i.e.*, neither time on duty nor time off duty, provided that the employee is given no specific responsibilities to perform during this time. However, if an employee is required to perform service of any kind during that period (*e.g.*, protecting the train against vandalism, observing passing trains for any defects or unsafe conditions, flagging, shutting down locomotives, checking fluid levels, or communicating train consist information via radio), he or she will be considered as on duty until all such service is completed. Of course, where a railroad carrier's operating rules clearly relieve the employee of all duties during the waiting period and no duties are specifically assigned, the waiting time is not computed as either time on duty or time off duty.

Transit time from the employee's residence to his regular reporting point is not considered deadhead time.

If an employee utilizes personal automobile transportation to a point of duty assignment other than the regular reporting point in lieu of deadhead transportation provided by the carrier, such actual travel time is considered as deadheading time. However, if the actual travel time from his home to the point of duty assignment exceeds a reasonable travel time from the regular reporting point to the point of duty assignment, then only the latter period is counted. Of course, actual travel time must be reasonable and must not include diversions for personal reasons.

*Example:* Employee A receives an assignment from an "extra board" located at his

home terminal to protect a job one hour's drive from the home terminal. In lieu of transporting the employee by carrier conveyance, the railroad pays the employee a fixed amount to provide his own transportation to and from the outlying point. The employee is permitted to go directly from his home to the outlying point, a drive which takes 40 minutes. The normal driving time between his regular reporting point at his home terminal and the outlying point is 60 minutes. The actual driving time, 40 minutes is considered deadhead time and is counted as time on duty under the Act.

Employee A performs local switching service at the outlying point. When the employee returns from the outlying point that evening, and receives an "arbitrary" payment for his making the return trip by private automobile, 40 minutes of his time in transportation home is considered deadheading to point of final release and is not counted as either time on duty or time off duty.

*Wreck and relief trains.* Prior to the 1976 amendments, crews of wreck and relief trains were exempted entirely from the limitations on hours of service. Under present law that is no longer the case. The crew of a wreck or relief train may be permitted to be on duty for not to exceed 4 additional hours in any period of 24 consecutive hours whenever an actual emergency exists and the work of the crew is related to that emergency. Thus, a crew could work up to 16 hours, rather than 12. The Act specifies that an emergency ceases to exist for purposes of this provision when the track is cleared and the line is open for traffic. An "emergency" for purposes of wreck or relief service may be a less extraordinary or catastrophic event than an "unavoidable accident or Act of God" under section 5(d) of the Act.

*Example:* The crew of a wreck train is dispatched to clear the site of a derailment which has just occurred on a main line. The wreck crew re-rails or clears the last car and the maintenance of way department releases the track to the operating department 14 hours and 30 minutes into the duty tour. Since the line is not clear until the wreck train is itself out of the way, the crew may operate the wreck train to its terminal, provided this can be accomplished within the total of 16 hours on duty.

*Emergencies.* The Act contains no general exception using the term "emergency" with respect to train or engine service or related work. See "casualties," etc., under "General Provisions".

#### COMMUNICATION OF TRAIN ORDERS

*Covered Service.* The handling of orders governing the movement of trains is the second type of covered service. This provision of the Act applies to any operator, train dispatcher

or other employee who by the use of the telegraph, telephone, radio, or any other electrical or mechanical device dispatches, reports, transmits, receives, or delivers orders pertaining to or affecting train movements.

The approach of the law is functional. Thus, though a yardmaster normally is not covered by this provision, a yardmaster or other employee who performs any of the specified service during a duty tour is subject to the limitations on service for that entire tour.

*Limitations on hours.* No employee who performs covered service involving communication of train orders may be required or permitted to remain on duty for more than nine hours, whether consecutive or in the aggregate, in any 24-hour period in any office, tower, station or place where two or more shifts are employed. Where only one shift is employed, the employee is restricted to 12 hours consecutively or in the aggregate during any 24-hour period.

The provision on emergencies, discussed below, may extend the permissible hours of employees performing this type of service.

*Shifts.* The term "shift" is not defined by the Act, but the legislative history of the 1969 amendments indicates that it means a tour of duty constituting a day's work for one or more employee performing the same class of work at the same station who are scheduled to begin and end work at the same time. The following are examples of this principle:

Scheduled Hours	Classification
7 a.m. to 3 p.m. ....	1 shift.
7 a.m. to 12:30 p.m. 1:30 p.m. to 8 p.m. (Schedule for one employee including one hour lunch period).	Do.
7 a.m. to 3 p.m. 7 a.m. to 3 p.m. (Two employees scheduled).	Do.
7 a.m. to 3 p.m. 8 a.m. to 4 p.m. (Two employees scheduled).	2 shifts.

*Duty time and effective periods of release.* If, after reporting to his place of duty, an employee is required to perform duties at other places during this same tour of duty, the time spent traveling between such places is considered as time on duty. Under the traditional administrative interpretation of section 3, other periods of transportation are viewed as personal commuting and, thus, off-duty time.

A release period is considered off-duty time if it provides a meaningful period of relaxation and if the employee is free of all responsibilities to the carrier. One hour is the minimum acceptable release period for this type of covered service.

*Emergencies.* The section of the Act dealing with dispatchers, operators, and others who transmit or receive train orders contains its own emergency provision. In case of emer-

gency, an employee subject to the 9 or 12-hour limitation is permitted to work an additional four hours in any 24-hour period, but only for a maximum of three days in any period of seven consecutive days. However, even in an emergency situation the carrier must make reasonable efforts to relieve the employee.

GENERAL PROVISIONS

(APPLICABLE TO ALL COVERED SERVICE)

*Commingled Service.* All duty time for a railroad even though not otherwise subject to the Act must be included when computing total on-duty time of an individual who performs one or more of the type of service covered by the Act. This is known as the principle of "commingled service".

For example, if an employee performs duty for 8 hours as a trainman and then is used as a trackman (not covered by the law) in the same 24-hour period, total on-duty time is determined by adding the duty time as trackman to that as trainman. The law does not distinguish treatment of situations in which non-covered service follows, rather than precedes, covered service. The limitations on total hours apply on both cases. It should be remembered that attendance at required rules classes is duty time subject to the provisions on "commingling". Similarly, where a carrier compels attendance at a disciplinary proceeding, time spent in attendance is subject to the provisions on commingling.

When an employee performs service covered by more than one restrictive provision, the most restrictive provision determines the total lawful on-duty time. Thus, when an employee performs duty in train or engine service and also as an operator, the provisions of the law applicable to operators apply to all on-duty and off-duty periods during such aggregate time. However, an employee subject to the 12 hour provision of section 2 of the law does not become subject to the 9 or 12-hour provisions of section 3 merely because he receives, transmits or delivers orders pertaining to or affecting the movement of his train in the course of his duties as a trainman.

*Casualties, Unavoidable Accidents, Acts of God.* Section 5(d) of the Act states the following: "The provisions of this Act shall not apply in any case of casualty or unavoidable accident or the Act of God; nor where the delay was the result of a cause not known to the carrier or its officer or agent in charge of the employee at the time said employee left a terminal, and which could not have been foreseen." This passage is commonly referred to as the "emergency provision". Judicial construction of this sentence has limited the relief which it grants to situations which are truly unusual and exceptional. The courts have recognized that delays and

operational difficulties are common in the industry and must be regarded as entirely foreseeable; otherwise, the Act will provide no protection whatsoever. Common operational difficulties which do not provide relief from the Act include, but are not limited to, broken draw bars, locomotive malfunctions, equipment failures, brake system failures, hot boxes, unexpected switching, doubling hills and meeting trains. Nor does the need to clear a main line or cut a crossing justify disregard of the limitations of the Act. Such contingencies must normally be anticipated and met within the 12 hours. Even where an extraordinary event or combination of events occurs which, by itself, would be sufficient to permit excess service, the carrier must still employ due diligence to avoid or limit such excess service. The burden of proof rests with the carrier to establish that excess service could not have been avoided.

*Sleeping Quarters.* Under the 1976 amendments to the Act it is unlawful for any common carrier to provide sleeping quarters for persons covered by the Hours of Service Act which do not afford such persons an opportunity for rest, free from interruptions caused by noise under the control of the railroad, in clean, safe, and sanitary quarters. Such sleeping quarters include crew quarters, camp or bunk cars, and trailers.

Sleeping quarters are not considered to be “free from interruptions caused by noise under the control of the railroad” if noise levels attributable to noise sources under the control of the railroad exceed an  $L_{eq}(8)$  value of 55dB(A).

*Collective Bargaining.* The Hours of Service Act prescribes the maximum permissible hours of service consistent with safety. However, the Act does not prohibit collective bargaining for shorter hours of service and time on duty.

*Penalty.* As amended by the Rail Safety Improvement Act of 1988 and the Rail Safety Enforcement and Review Act of 1992, the penalty provisions of the law apply to 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), except that a penalty may be assessed against an individual only for a willful violation. See appendix A to 49 CFR part 209. For violations that occurred on September 3, 1992, a person who violates the Act is liable for a civil penalty, as the Secretary of Transportation deems reasonable, in an amount not less than \$500 nor more than \$11,000, except that where a grossly negligent violation or a pat-

tern of repeated violations has created an imminent hazard of death or injury to persons, or has caused death or injury, a penalty not to exceed \$22,000 may be assessed. The Federal Civil Penalties Inflation Adjustment Act of 1990 as amended by the Debt Collection Improvement Act of 1996 required agencies to increase the maximum civil monetary penalty for inflation. The amounts increased from \$10,000 to \$11,000 and from \$20,000 to \$22,000 respectively. According to the same law, in 2004, the minimum penalty of \$500 was raised to \$550, and the maximum penalty for a grossly negligent violation or a pattern of repeated violations that has caused an imminent hazard of death or injury to individuals or has caused death or injury, was increased from \$22,000 to \$27,000. The \$11,000 maximum penalty was not adjusted. Effective October 9, 2007, the ordinary maximum penalty of \$11,000 was raised to \$16,000 as required under law. Effective March 2, 2009, the minimum penalty, ordinary maximum penalty and aggravated maximum penalty were raised again. The minimum penalty was increased from \$550 to \$650 pursuant to the law’s requirement. Meanwhile, the ordinary maximum penalty was increased from \$16,000 to \$25,000 and the aggravated maximum was increased from \$27,000 to \$100,000 in accordance with the authority provided under the Rail Safety Improvement Act of 2008. Meanwhile, the ordinary maximum penalty was increased from \$16,000 to \$25,000 and the aggravated maximum was increased from \$27,000 to \$100,000 in accordance with the authority provided under the Rail Safety Improvement Act of 2008. See sec. 302, Div. A, Public Law 110–432, 122 Stat. 4848, 4878, Oct. 16, 2008; 49 U.S.C. 21301–21303. Effective June 25, 2012, the aggravated maximum penalty was raised from \$100,000 to \$105,000 pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990. Public Law 101–410, 104 Stat. 890, 28 U.S.C. 2461, note, as amended by Sec. 31001(s)(1) of the Debt Collection Improvement Act of 1996, Public Law 104–134, 110 Stat. 1321–373, Apr. 16, 1996.

Each employee who is required or permitted to be on duty for a longer period than prescribed by law or who does not receive a required period of rest represents a separate and distinct violation and subjects the railroad to a separate civil penalty. In the case of a violation of section 2(a)(3) or (a)(4) of the Act, each day a facility is in noncompliance constitutes a separate offense and subjects the railroad to a separate civil penalty.

In compromising a civil penalty assessed under the Act, FRA takes into account the nature, circumstances, extent, and gravity of the violation committed, and, with respect to the person found to have committed such violation, the degree of culpability, any history of prior or subsequent offenses, ability to pay, effect on ability to continue to do

business and such other matters as justice may require.

*Statute of limitations.* No suit may be brought after the expiration of two years from the date of violation unless administrative notification of the violation has been provided to the person to be charged within that two year period. In no event may a suit be brought after expiration of the period specified in 28 U.S.C. 2462.

*Exemptions.* A railroad which employs not more than 15 persons covered by the Hours of Service Act (including signalmen and hostlers) may be exempted from the law's requirements by the FRA after hearing and for good cause shown. The exemption must be supported by a finding that it is in the public interest and will not adversely affect safety. The exemption need not relate to all carrier employees. In no event may any employee of an exempt railroad be required or permitted to work beyond 16 hours continuously or in the aggregate within any 24-hour period. Any exemption is subject to review at least annually.

[42 FR 27596, May 31, 1977, as amended at 43 FR 30804, July 18, 1978; 53 FR 28601, July 28, 1988; 55 FR 30893, July 27, 1990; 58 FR 18165, Apr. 8, 1993; 61 FR 20495, May 7, 1996; 63 FR 11622, Mar. 10, 1998; 69 FR 30594, May 28, 2004; 72 FR 51197, Sept. 6, 2007; 73 FR 79703, Dec. 30, 2008; 76 FR 67092, Oct. 31, 2011; 77 FR 24421, Apr. 24, 2012]

APPENDIX B TO PART 228—SCHEDULE OF CIVIL PENALTIES<sup>1</sup>

Section	Violation	Willful violation
Subpart B—Records and Reporting:		
228.9 Railroad records	\$1,000	\$2,000
228.11 Hours of duty records .....	1,000	2,000
228.17 Dispatcher's record .....	1,000	2,000
228.19 Monthly reports of excess service .....	1,000	2,000

<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 \$105,000 for any violation where circumstances warrant. See 49 CFR part 209, appendix A.

[53 FR 52931, Dec. 29, 1988, as amended at 69 FR 30594, May 28, 2004; 73 FR 79703, Dec. 30, 2008; 77 FR 24421, Apr. 24, 2012]

APPENDIX C TO PART 228 [RESERVED]

APPENDIX D TO PART 228—GUIDANCE ON FATIGUE MANAGEMENT PLANS

(a) Railroads subject to subpart F of this part, Substantive Hours of Service Requirements for Train Employees Engaged in Commuter or Intercity Rail Passenger Transportation, may wish to consider adopting a

written fatigue management plan that is designed to reduce the fatigue experienced by their train employees subject to that subpart and to reduce the likelihood of accidents, incidents, injuries, and fatalities caused by the fatigue of these employees. If a railroad is required to have a fatigue mitigation plan under §228.407 (containing the fatigue mitigation tools that the railroad has determined will mitigate the risk posed by a particular work schedule for a level of fatigue at or above the fatigue threshold), then the railroad's fatigue management plan could include the railroad's written fatigue mitigation plan, designated as such to distinguish it from the part of the plan that is optional, or could be a separate document. As provided in §228.407(a)(2) and (e), compliance with the fatigue mitigation plan itself is mandatory.

(b) A good fatigue management plan contains targeted fatigue countermeasures for the particular railroad. In other words, the plan takes into account varying circumstances of operations by the railroad on different parts of its system, and should prescribe appropriate fatigue countermeasures to address those varying circumstances. In addition, the plan addresses each of the following items, as applicable:

(1) Employee education and training on the physiological and human factors that affect fatigue, as well as strategies to reduce or mitigate the effects of fatigue, based on the most current scientific and medical research and literature;

(2) Opportunities for identification, diagnosis, and treatment of any medical condition that may affect alertness or fatigue, including sleep disorders;

(3) Effects on employee fatigue of an employee's short-term or sustained response to emergency situations, such as derailments and natural disasters, or engagement in other intensive working conditions;

(4) Scheduling practices for employees, including innovative scheduling practices, on-duty call practices, work and rest cycles, increased consecutive days off for employees, changes in shift patterns, appropriate scheduling practices for varying types of work, and other aspects of employee scheduling that would reduce employee fatigue and cumulative sleep loss;

(5) Methods to minimize accidents and incidents that occur as a result of working at times when scientific and medical research has shown that increased fatigue disrupts employees' circadian rhythm;

(6) Alertness strategies, such as policies on napping, to address acute drowsiness and fatigue while an employee is on duty;

(7) Opportunities to obtain restful sleep at lodging facilities, including employee sleeping quarters provided by the railroad;

(8) The increase of the number of consecutive hours of off-duty rest, during which an employee receives no communication from

**Pt. 229**

**49 CFR Ch. II (10–1–12 Edition)**

the employing railroad or its managers, supervisors, officers, or agents; and

(9) Avoidance of abrupt changes in rest cycles for employees.

(c) Finally, if a railroad chooses to adopt a fatigue management plan, FRA suggests that the railroad review the plan and update it periodically as the railroad sees fit if changes are warranted.

[76 FR 50400, Aug. 12, 2011]

**PART 229—RAILROAD  
LOCOMOTIVE SAFETY STANDARDS**

**Subpart A—General**

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

**Subpart B—Inspections and Tests**

- 229.21 Daily inspection.
- 229.23 Periodic inspection: General.
- 229.25 Tests: Every periodic inspection.
- 229.27 Annual tests.
- 229.29 Air brake system calibration, maintenance, and testing.
- 229.31 Main reservoir tests.
- 229.33 Out-of-use credit.

**Subpart C—Safety Requirements**

**GENERAL REQUIREMENTS**

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

**BRAKE SYSTEM**

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

**DRAFT SYSTEM**

- 229.61 Draft system.

**SUSPENSION SYSTEM**

- 229.63 Lateral motion.

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

**ELECTRICAL SYSTEM**

- 229.77 Current collectors.
- 229.79 Third rail shoes.
- 229.81 Emergency pole; shoe insulation.
- 229.83 Insulation or grounding of metal parts.
- 229.85 High voltage markings: doors, cover plates, or barriers.
- 229.87 Hand-operated switches.
- 229.89 Jumpers; cable connections.
- 229.91 Motors and generators.

**INTERNAL COMBUSTION EQUIPMENT**

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

**STEAM GENERATORS**

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

**CABS AND CAB EQUIPMENT**

- 229.115 Slip/slide alarms.
- 229.117 Speed indicators.
- 229.119 Cabs, floors, and passageways.
- 229.121 Locomotive cab noise.
- 229.123 Pilots, snowplows, end plates.
- 229.125 Headlights and auxiliary lights.
- 229.127 Cab lights.
- 229.129 Locomotive horn.
- 229.131 Sanders.
- 229.133 Interim locomotive conspicuity measures—auxiliary external lights.
- 229.135 Event recorders.
- 229.137 Sanitation, general requirements.
- 229.139 Sanitation, servicing requirements.
- 229.140 Alerters.
- 229.141 Body structure, MU locomotives.

**Subpart D—Locomotive Crashworthiness  
Design Requirements**

- 229.201 Purpose and scope.
- 229.203 Applicability.
- 229.205 General requirements.
- 229.206 Design requirements.
- 229.207 New locomotive crashworthiness design standards and changes to existing