

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 [Reserved]

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

EFFECTIVE DATE NOTE: At 76 FR 50397, Aug. 12, 2011, subpart F was added, effective October 15, 2011.

§ 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 employ-

ees, 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—

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(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 sched-

ules 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.

(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 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 intercity 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 designated 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