



APTA RT-OP-S-015-09 Rev 1

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Rail Transit Operating Practices Working
Group

Train Operator Hours-of-Service Requirements

Abstract: This standard provides minimum hours-of-service (HOS) requirements for rail transit systems that do not comply with more restrictive existing federal or state hours-of-service requirements, to ensure that all operators adhere to maximum hours of service and minimum rest period requirements and that rail transit systems have procedures in place to enforce such programs.

Keywords: hours of service, fatigue, scheduling

Summary: This standard outlines the basic elements of an HOS program. An HOS program creates the conditions in which train operators have an opportunity to get sufficient rest (eight hours of uninterrupted sleep) between work shifts to minimize the impact of fatigue on their job performance.

Scope and purpose: This standard applies to rail transit systems that operate light-rail and heavy-rail systems and do not currently comply with more restrictive existing federal or state hours-of-service requirements. It does not apply to commuter railroads that operate on the general railroad system regulated by the Federal Railroad Administration (FRA). This standard also applies to those light-rail systems that operate under a Shared Use waiver issued by the FRA, but only to the extent that the FRA hours-of-service rules do not apply to the system or particular groups of employees at the system. Operating rules are created to promote safe, efficient, timely and customer-oriented transit operations. Adherence to these operating rules is necessary to achieve these objectives.

This document represents a common viewpoint of those parties concerned with its provisions, namely transit operating/planning agencies, manufacturers, consultants, engineers and general interest groups. The application of any recommended practices or guidelines contained herein is voluntary. In some cases, federal and/or state regulations govern portions of a transit system's operations. In those cases, the government regulations take precedence over this standard. NATSA (North American Transit Services Association) and its parent organization APTA recognizes that for certain applications, the standards or practices as implemented by individual transit agencies may be either more or less restrictive than those given in this document, unless referenced in federal regulations.

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Introduction

This introduction is not part of APTA RT-OP-S-015-09, Rev 1 *Train Operator Hours-of-Service Requirements*.

APTA's Operating Practices Committee members thoroughly debated the provisions of this standard and wrote it to formalize safe operating practices as they pertain to the amount of off-duty time a rail transit system provides to train operators between shifts to allow for rest and limitations for on-duty time. Rail transit systems are free to develop more restrictive rules than are provided for in this standard. Federal or state laws that are more restrictive than this standard supersede this standard and must be followed.

The updated provisions of this standard will not be considered in effect until five years from the date of its approval. This schedule is set so that each rail transit system may make changes to rules and policies in accordance with labor agreement requirements. Some transit systems may comply sooner than others, but it is expected that each agency will take the necessary steps to incorporate the provisions of this standard within this five-year timeframe.

APTA recommends the use of this document by:

- individuals or organizations that operate rail transit systems;
- individuals or organizations that contract with others for the operation of rail transit systems; and
- individuals or organizations that influence how rail transit systems are operated (including but not limited to consultants, designers and contractors).

Note on alternate practices

Individual rail transit systems may modify the practices in this standard to accommodate their specific equipment and mode of operation. APTA recognizes that some rail transit systems may have unique operating environments that make strict compliance with every provision of this standard impossible. As a result, certain rail transit systems may need to implement the standards and practices herein in ways that are more or less restrictive than this document prescribes. A rail transit system may develop alternates to APTA standards so long as the alternates are based on a safe operating history and are described and documented in the system's safety program plan (or another document that is referenced in the system safety program plan).

Documentation of alternate practices shall:

- identify the specific APTA rail transit safety standard requirements that cannot be met;
- state why each of these requirements cannot be met;
- describe the alternate methods used; and
- describe and substantiate how the alternate methods do not compromise safety and provide a level of safety equivalent to the practices in the APTA safety standard (operating histories or hazard analysis findings may be used to substantiate this claim).

Train Operator Hours-of-Service Requirements

1. General requirements

1.1 Policy requirement

The RTA shall establish a policy defining its hours of service requirements in accordance with this standard.

Any rail transit systems subject to more restrictive federal or state hours-of-service requirements shall develop, implement and adhere to a written policy governing hours-of-service requirements that complies with all regulations and incorporates the requirements of this standard.

1.2 Employee applicability

HOS requirements shall apply to all train operators, as defined by this standard. The RTA may choose to expand the scope of this document to apply to other categories of employees.

1.3 Scheduling

Train operators shall not be scheduled to work in violation of HOS requirements unless the procedures for extreme/exigent circumstances described in Section 7 are followed.

1.4 Shift assignments

The RTA shall not knowingly assign work to a train operator that would violate its policy on HOS requirements.

1.5 Responsibility of train operators

The RTA shall define the train operator's responsibilities concerning HOS in its rulebook or other appropriate document.

2. Maximum on-duty time

The RTA shall not schedule a train operator to be on duty for an overall elapsed time from start to finish greater than 16 hours, with no more than 12 hours of work in the aggregate.

For the purposes of this standard's requirements, the RTA shall define what activities are considered to be work or operating duties.

3. Minimum off-duty time

The RTA shall require a minimum off-duty time between shifts of 10 hours or more.

4. Maximum period of consecutive work days

The RTA shall not allow train operators to work seven or more consecutive days.

5. Record-keeping

5.1 Requirement to record shift times

The RTA shall maintain a record of hours worked by all train operators, including shift start and end times and dates.

5.2 Requirement to maintain records

Records shall allow for verification of compliance with RTA HOS requirements. This standard does not require separate record-keeping for HOS if existing RTA records provide for verification of HOS compliance. The RTA shall determine the record retention period in instances where a governing authority does not apply.

6. HOS compliance program

6.1 Verification of compliance

The RTA shall develop a process that verifies compliance with HOS requirements.

6.2 Compliance reinforcement

The RTA shall develop a process for addressing violations of HOS requirements, if they occur, in order to help ensure compliance with the HOS program.

7. Emergency circumstances

Under emergency circumstances, the RTA may temporarily suspend HOS requirements in order to provide critical transportation services.

The RTA shall include provisions in the HOS policy for emergency circumstances during which an exception to the requirement can be made. The RTA shall define how such situations will be identified, by whom and what level of exception will be made.

The RTA shall define what constitutes an emergency for the purposes of the Hours of Service Program.

8. Fatigue awareness

In addition to HOS requirements, the RTA shall consider fatigue management program requirements as set forth in APTA Rail Transit Standard for Fatigue Management Program Requirements (APTA RT-OP-S-23-17) to supplement System Safety Program Plan or Public Transportation Agency Safety Plan management activities. As a part of its fatigue awareness strategy, the RTA shall set a policy for mandatory full days off to break extended, continuous work cycles for train operators. Information on fatigue management strategies can be found in the “Toolbox for Transit Operator Fatigue” (TCRP Report 81). Other resources are listed in Appendix A to this standard.

Reference

Gertler, Judith; Popkin, Stephen; Nelson, David; and O’Neil, Kay, “Toolbox for Transit Operator Fatigue,” TCRP Report 81, Transportation Research Board, National Research Council, National Academy Press, Washington, D.C., 2002. http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp_rpt_81.pdf

Transit Advisory Committee for Safety [TRACS] Report on Establishing a Fatigue Management Program for the Bus and Rail Transit Industry – 14-02 Report Published July 30, 2015.

Definitions

day: Any twenty-four-hour period starting at the beginning of the on-duty time.

duty tour: The elapsed period from the time the employee initially reports for work to the time the employee is finally released from duty. The duty tour may include one or more interim periods of release. (*Transit Advisory Committee for Safety [TRACS] Report on Establishing a Fatigue Management Program for the Bus and Rail Transit Industry – 14-02 Report Published July 30, 2015*)

emergency: An unexpected event related to the operation of passenger train service involving significant threat to the health or safety of one or more persons, requiring immediate action. Examples include: derailment, highway/rail grade crossing accident, passenger or employee fatality or serious illness/injury, evacuation of train or security situation.

hours of service (HOS): Rules or regulations intended to govern the number of hours a train operator may work. Generally, the agency policy on HOS requirements also incorporate mandatory rest periods.

hours on duty: The number of hours the train operator is required to work or to perform operating duties.

off duty time: Time during which an employee is free to leave the workplace, commute between work and home, engage in personal activities, and obtain rest. Off-duty time includes interim periods of release of one hour or greater, mandatory off-duty periods, days off, vacation days, and other periods not defined as “on-duty time”. (*Transit Advisory Committee for Safety [TRACS] Report on Establishing a Fatigue Management Program for the Bus and Rail Transit Industry – 14-02 Report Published July 30, 2015*)

on-duty time: Time actually spent in the service of the transportation agency, whether or not compensated, including time performing safety-critical tasks and other tasks, time “standing by” to perform duties when instructed, and work breaks or interim periods. On-duty time can include drive or seat time as well as in station time, breaks between runs, and other incidental tasks and duties. On-duty time includes time spent in transportation to and from a work location but does not include travel time to/from home to work or work to home. On-duty time includes time devoted to training. (*Transit Advisory Committee for Safety [TRACS] Report on Establishing a Fatigue Management Program for the Bus and Rail Transit Industry – 14-02 Report Published July 30, 2015*)

rail transit agency (RTA): The organization that operates rail transit service and related activities. Also known as the transit system, agency, transit agency, operating agency, operating authority, transit authority and other similar terms. (*49 CFR Part 673.5*)

train operator: A person who performs any of the following duties, when performed by employees of FTA funding recipients, sub-recipients, operators or contractors:

- operating a revenue service vehicle, including when not in revenue service
- operating a nonrevenue service vehicle that operates in mixed service with revenue service trains

work: When a train operator is responsible for operating a train. This includes terminal time when the operator is not actually moving a train.

Abbreviations and acronyms

CFR	Code of Federal Regulations
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
HOS	hours of service
NATSA	North American Transit Services Association
RTA	rail transit agency
TCRP	Transit Cooperative Research Program

Summary of document changes

- Section 2: Reduced maximum number of hours of work hours while on-duty from 14 to 12.
- Section 4: Updated requirements under *Maximum period of consecutive work days*.
- Section 4: Added specific language restricting consecutive days worked, so that no employee may work 7 or more days sequentially.
- Section 8: Included reference to *Public Transportation Agency Safety Plan*
- Added a section on Definitions to the document.
- Updated document for language usage.

Document history

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Appendix A: Bibliography

1. 14 FAR §121 (Aviation HOS Requirements)
2. 46 CFR §15 (Maritime HOS Requirements)
3. 49 CFR §228 (Railroad HOS Requirements)
4. 49 CFR §395 (Motor Carrier HOS Requirements)
5. Fatigue Management Survey Results: State Safety Oversight and Rail Transit Agencies Affected by 49 CFR Part 659, Prepared by the Federal Transit Administration Office of Safety and Security, September 2006.
6. Fatigue Resource Directory, United States Department of Transportation. URL: <http://fredi.volple.dot.gov>
7. Hursh, SR, Redmond, DP, Johnson, ML, Thorne, DR, Belenky, G, Balkin, TJ, Storm, WF, Miller, JC, and Eddy, DR (2004). Fatigue models for applied research in warfighting. Aviation, Space, and Environmental Medicine, 75(3), Suppl II, A44-A53.
8. NASA Fatigue Countermeasures Program.
9. National Transit Institute. URL: <http://www.ntionline.com>
10. NTSB/RAR-06/01. Railroad Accident Report. Collision Between Two Washington Metropolitan Area Transit Authority Trains at the Woodley Park – Zoo/Adams Morgan Station in Washington, D.C. November 3, 2004. Final Report. March 23, 2006.
11. Transportation Safety Institute, United States Department of Transportation. URL: <http://www.tsi.dot.gov>
12. Transit Advisory Committee for Safety (TRACS) 14-02 Report. Establishing a Fatigue Management Program for the Bus and Rail Transit Industry.