12. Standard for Rail Transit System
Train Operations Safety Program

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APTA Rail Transit Standards Operating Practices Committee

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Abstract: This standard provides guidance for the formation of an RTS Train Operations Safety Program.

Keywords: CBN, contractor safety, fire safety, housekeeping, operational safety, safety meetings, safe operations in yards, safety program, safety rules, track safety, work zone safety
Introduction

(This introduction is not part of APTA RT-OP-S-012-03, *Standard for Rail Transit System Train Operations Safety Program.*)

This standard 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 standards contained herein is voluntary. In some cases, Federal and/or State regulations govern portions of a Rail Transit System’s operations. In those cases, the government regulations take precedence over this standard. APTA recognizes that for certain applications, the standards or recommended practices, as implemented by individual rail transit agencies, may be either more or less restrictive than those given in this document.
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Standard for Rail Transit System Train Operations Safety Program

1. Overview

1.1 Scope

The scope of this Standard outlines the basic elements required for formation of an RTS train operations safety program. This applies to the activities of train operations personnel.

1.2 Purpose

Safety is a primary concern to all Rail Transit Systems (RTS); therefore, it is paramount that RTS have a comprehensive and highly effective safety program. This Standard establishes minimum safety requirements for safe train operations.

1.3 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 (RTS) may develop alternates to the 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:

a) Identify the specific APTA rail transit safety standard requirements that cannot be met

b) State why each of these requirements cannot be met

c) Describe the alternate methods used

d) 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).
2. References

APTA RT-S-OP-003-02, *Standard for Safe Operations in Yards*

APTA RT-S-OP-004-03, *Standard for Work Zone Safety*

APTA RT-S-OP-010-03, *Standard for Contractor’s Responsibility for Right of Way Safety*

APTA RT-S-OP-011-04, *Standard for Rule Compliance*

3. Definitions and abbreviations

3.1 Definitions

3.1.1 personal protective equipment (PPE): Term includes all clothing and other work accessories designed to create a barrier against workplace hazards. Examples include safety goggles, blast shields, hard hats, hearing protectors, gloves, respirators, aprons, and work boots.

3.1.2 rail operations employee: Term used to describe rail transit operators and conductors and others required to routinely operate rail transit trains.

3.1.3 rail transit system (RTS): Term used to describe the organization that operates rail transit service and related activities. It is also known as the transit system, transit agency, operating agency, operating authority, transit authority, or other similar term.

3.2 Abbreviations

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<th>Description</th>
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<tr>
<td>ANSI</td>
<td>American National Standards Institute</td>
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<td>PPE</td>
<td>Personal Protective Equipment</td>
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<td>RTS</td>
<td>Rail Transit System</td>
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4. Requirements

Each RTS shall develop and prepare safety rules and procedures that are part of the RTS’s operations rule book or other governing documentation (e.g., Standard Operating Procedures, bulletins).

All RTS employees shall be familiarized with such safety rules and procedures during orientation/qualification and refresher training programs.

RTS employees in appropriate classifications shall receive a copy of such rules with receipt of acknowledgement, according to RTS policies/procedures.

The RTS shall implement a program to evaluate safety rule compliance. APTA Standard RT-S-OP-011-04, *Standard for Rule Compliance*, addresses this topic.

The RTS shall also have a methodology to identify, correct and prevent unacceptable hazardous conditions and operational deficiencies.
The RTS shall provide all employees with the appropriate personal protective equipment (PPE), meeting minimum ANSI standards, and enforce its use.

5. General safety rule topics

RTS’s shall develop the following types of rules contained within a safety rule book or other governing documents that address the following major categories:

5.1 General practices and conduct

This includes safety rules and procedures pertaining to behavior and activities that are applicable to all job classifications within a RTS. (e.g., requirements and methods of resolution concerning hazardous conditions, prohibitions on running, horseplay, use of hand rails while walking on stairs, etc.)

5.2 Track safety

This includes safety rules and procedures pertaining to activities by all employees while in yards and on right of ways. Examples of these types of rules are:

- wearing of personal protective equipment (e.g., safety/reflective vests, etc.)
- hand, flag and lantern signals
- requirements to train and certify in rail safety classes before being allowed on trackage,
- relevant track safety communication requirements (e.g., procedures for notification prior to and exiting right-of-ways)
- personal protective measures (e.g., looking both ways before crossing tracks, appropriate actions when a train approaches, walking against normal flow of traffic, stepping over and not on rails or switch points, proper use of switches, avoiding walking between tracks/running rails, standing in areas with proper clearance when trains pass, etc.)
- traction power: rules and procedures pertaining to employee requirements when working on or about high-voltage apparatus/circuitry. This should include specific instructions related directly to the type of traction power collection utilized (i.e. catenary or third rail).

5.3 Operational safety

This includes rules and procedures pertaining to the safe operation of trains not addressed in other areas, for instance, passing people on the track properly, operating according to displayed signals and switch positions, smooth braking and acceleration methods and principles.

5.4 Work zone safety

RTS’s shall develop safety rules and procedures pertaining to activities by all employees and employees of contractors engaged in work zone activities, including: employee responsibilities,
working on/under/around rail vehicles, train operations in yards, training, demarcation of work zone and approaches, audible and hand signals, communications procedures, allowable speeds and methods of passing wayside workers, wayside worker protection, removing tracks from service, returning tracks to service, PPE, worker attire, and walking on the right of way. APTA Standard RT-S-OP-004-03, Standard for Work Zone Safety addresses this topic.

5.5 Safe operations in yards

RTS’s shall develop safety rules and procedures pertaining to activities by all employees engaged in yard activities. Issues to be addressed for safety operations in yards include:

- speed limits;
- employee responsibilities,
- train operations in yards,
- preparing trains for service,
- the movement of trains into and out of facilities,
- maintenance storage track usage,
- boarding and alighting vehicles,
- procedures for operating switches


5.6 Contractor safety

RTS’s shall develop Contractor’s responsibilities for knowing, complying with, and enforcing the RTS guidelines, rules and procedures. This includes the governance of the activities of Contractors performing inspection, investigation, design, construction and/or any other work on or near the RTS. APTA Standard RT-S-OP-010-03, Standard for Contractor’s Responsibility for Right of Way Safety addresses this in further detail.

5.7 Housekeeping

RTS’s shall develop rules and procedures pertaining to the general maintenance and orderliness of facilities. This involves a range of topics including use of proper household appliances (e.g., avoiding the overload of electrical circuits and the use of extension cords); storing material, supplies and equipment in a non-hazardous manner, eliminating tripping/slipping hazards and defective equipment such as broken chairs, railings, etc.); proper disposal of debris and refuse etc.
5.8 Safety meetings

RTSs shall conduct safety meetings. Meetings may be scheduled on a regular, periodic or special needs basis. Safety meetings may be called as a result of changes in policy, procedures, or rules resulting from an incident, evaluations/audits or other reasons, including employee recommendations and suggestions.

Safety meetings should include management/supervisory and operational personnel.

5.9 Fire safety

RTS’s shall develop rules and/or procedures pertaining to safety as it relates to situations involving fire anywhere in the RTS system. This topic shall include fire prevention and response measures. Fire response measures shall include notification/alarm responses, use of extinguishers and evacuation of revenue vehicles, stations, rights-of-way yards and other facilities.

5.10 Necessary/required safety-related equipment/attire (including PPE)

RTS’s shall develop rules and/or procedures pertaining to employee requirements for and usage of any safety related equipment and attire (e.g. vests, proper footwear, flashlights, etc.).

5.11 Health and safety substance, material and objects/packages (e.g. bloodborne pathogens)

RTS’s shall develop rules and/or procedures pertaining to employee requirements for responding to situations involving health and safety issues including, but not limited to, suspicious substances, bloodborne pathogens, and hazardous materials.

5.12 Chemical/biological/nuclear incidents

RTS’s shall develop rules and/or procedures pertaining to employee requirements for responding to incidents involving possible chemical/biological/nuclear incidents shall be developed and training shall be provided. RTS may consider including outside programs to improve employee awareness (e.g. National Transit Institute’s Security Awareness Training – Eyes & Ears).

5.13 Drugs and alcohol

RTS’s shall develop information pertaining to policies, procedures, and directives regarding drugs and alcohol, including related regulations of the U.S. Department of Transportation.