



APTA RT-OP-S-003-02, Rev. 3

First Published: September 22, 2002

Third Revision: September 11, 2025

Operating Practices Working Group

Requirements for Safe Operations in Yards and Maintenance Facilities

Abstract: This standard provides guidance for the safe operation of trains and on-track equipment (OTE) in rail yards and maintenance facilities. It is applicable to heavy rail, light rail, streetcars and automated people-mover systems, and provides standards for employees responsibilities for the safe movement of trains and OTE.

Keywords: maintenance facilities, OTE, rail transit operations, safe operations, yards

Summary: The operation of trains and OTE in yards and maintenance facilities requires coordination of activities to ensure the safety of personnel and the protection of equipment. This document provides requirements for rules and procedures for employee responsibility for the safe movement of trains and OTE in yards and maintenance facilities.



Foreword

The American Public Transportation Association is a standards development organization in North America. The process of developing standards is managed by the APTA Standards Program's Standards Development Oversight Council (SDOC). These activities are carried out through several standards policy and planning committees that have been established to address specific transportation modes, safety and security requirements, interoperability, and other topics.

APTA used a consensus-based process to develop this document and its continued maintenance, which is detailed in the [manual for the APTA Standards Program](#). This document was drafted in accordance with the approval criteria and editorial policy as described. Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

This document was prepared by the Operating Practices Working Group as directed by the Rail Standards Policy and Planning Committee.

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. APTA standards are mandatory to the extent incorporated by an applicable statute or regulation. In some cases, federal and/or state regulations govern portions of a transit agency's operations. In cases where there is a conflict or contradiction between an applicable law or regulation and this document, consult with a legal adviser to determine which document takes precedence.

This document supersedes APTA RT-OP-S-003-02, Rev. 2, which has been revised. Below is a summary of changes from the previous document version:

- Some global changes to section headings and numbering resulted when sections dealing with references and acronyms were moved to the end of the document.
- Changed references from "rail transit system (RTS)" to "rail transit agency."
- Global edits for grammar, syntax, clarity and consistency throughout the document.
- Expanded Section 2, "Safe operations requirements"; Section 2.1, "Yard and maintenance facility rule and procedure requirements"; and Section 2.3, "Employee responsibilities."
- Added Section 2.2, "Track out of service."
- Added Section 2.2.4, "Pushing and towing movements."
- Deleted Section 2.2.6, "Work zone safety practices."
- Added Section 2.2.7, "Personal protective equipment requirements."
- Added Section 2.5, "Other yard operating practices and considerations."
- Technical edits made to Section 2.7, "Roadway worker protection and work zone safety practices."
- Technical edits made to Section 2.8, "Training."
- Deleted Section 2.7.2, "Assignment of responsibility."
- Deleted Section 2.7.4, "Personal protective equipment."
- Added Section 2.7.6, "Track designation and assignment."
- Added Section 2.7.7, "Walkways and designated areas for employee movement in yard."
- Added Section 2.7.13, "Yard control jurisdictions."



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Introduction

This introduction is not part of APTA RT-OP-S-003-02, “Requirements for Safe Operations in Yards and Maintenance Facilities.”

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).

Scope and purpose

This standard establishes the minimum requirements for the safe operation of trains and OTE in yards and in maintenance facilities. It identifies rail transit agency and employee responsibilities and specific safety practices that can be adapted for multiple types of rail transit agencies.

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).

Requirements for Safe Operations in Yards and Maintenance Facilities

1. Background

The operation of trains and on-track equipment (OTE) in yards and maintenance facilities requires coordination of activities to ensure the safety of personnel and protection of trains, OTE and infrastructure. The adherence to rules and procedures is required for safe operations.

2. Safe operations requirements

“Safe operations” is a term that defines and encompasses all activities necessary for the safe movement of trains and OTE. Safe operations require all employees to be familiar with and comply with the rules and procedures that govern the movement of trains and OTE in yards and maintenance facilities. Communication among rail transit agency staff members of different departments (as required) operating within the yard and maintenance facility is a key component of safe operations and helps ensure coordination among all personnel.

The rail transit agency shall develop rules and procedures that govern safe operations in yards and maintenance facilities.

The rail transit agency establish the roles and responsibilities for the coordination of the different parties responsible for yard and maintenance shop activities, including but not limited to movement of trains and equipment; traction power management; facilities, infrastructure, and systems maintenance; cleaning and landscape management; and other factors affecting safe yard operation.

Safe operations may also encompass other elements, including the following:

- performing inspections, as defined by the rail transit agency, prior to moving train within the yard or maintenance facility
- conducting a pre-trip/departure inspection (e.g., minimum operating standards equipment list) prior to entering the main line
- operating trains at safe speeds
- securement of trains and equipment, including identification of train/equipment status (e.g., blue flag protection)
- coupling/uncoupling of trains
- use of audible alerts and signals related to train and OTE movement
- observing and ensuring rail and power distribution equipment is free of obstruction or defects
- checking switches for proper alignment
- performing safety stops
- inspection and maintenance of yard track, systems and infrastructure

Safe operations mandate that employees perform their duties in a safe manner while using proper safeguards and with a general understanding of how their actions may affect others.

2.1 Yard and maintenance facility rule and procedure requirements

The rail transit agency shall develop and implement rules and procedures and/or develop and include a specific element within its roadway worker protection (RWP) program that specifically governs the actions of employees while performing their duties in yards and maintenance facilities. These rules and procedures shall be appropriate for the rail transit agency, taking into consideration safe operating practices involving:

- operating environment
- types of rail cars and on-track equipment used in the yard
- equipment and tools used
- infrastructure
- safe train and OTE operating speed
- geographic location and climatic conditions
- time of day
- track, switches, traction power and signals
- interface with yard personnel
- maintenance and train operating employee safety requirements
- lights and flags
- trains out of service (e.g., blue flag protection)
- layout of the yard and various maintenance facilities
- test track

The rail transit agency's procedures shall also describe specific safety precautions for train operators, OTE operators and maintenance workers while performing safety-sensitive duties, as well as other individuals in the yard. The rail transit agency shall identify safety precautions associated with energized third rails, energized overhead wires, fueling facilities, and/or train and OTE movement. See APTA RT-OP-S-021-15, "On-Track Equipment Safety Requirements."

The rail transit agency shall develop procedures for ensuring that all trains and OTE are ready for safe moves, which typically include a physical inspection.

2.1.1 Movement authorization

The rail transit agency shall establish rules and/or procedures for the authorization of train and OTE movements within yards and maintenance facilities, as well as movements into and out of yards and maintenance facilities. The level of control required will be determined by the size, complexity and operating practices of the rail transit agency. The rail transit agency shall establish requirements for yard supervisor authorization of movements.

Train and OTE movement authorization must be clearly defined and permission granted by operating rules and/or procedures, the operations control center, vehicle maintenance management or a yard supervisor. The rail transit agency may have a single entity responsible for governing yard and maintenance facility movement or separate authority for trains once in a maintenance shop after leaving the yard. The rail transit agency shall clearly identify the rules and procedures governing yard control. Train movements in the yard may also be controlled by signal, or trains may be operated by line of sight. In the absence of signal protection, the rail transit agency shall develop specific operating procedures to ensure a safe operating environment in the yard. Regardless of the type of control or methodology used, the rail transit agency shall develop clear procedures that inform all individuals of their responsibilities and level of authority.

The rail transit agency shall develop rules and/or procedures governing the movement of workers, taking into consideration communications protocols, access permissions, use of walkways or other yard activities.

2.1.2 Track classification

The rail transit agency shall identify all tracks according to their operating classification. This may include categories such as main tracks, running tracks, yard lead tracks, side tracks, test tracks, storage tracks, yard tracks, maintenance tracks or some other designation appropriate to that particular agency. The rail transit agency shall also designate the yard limit, determine how yard tracks can be used, and manage yard track access. The rail transit agency shall establish a procedure to restrict access or remove tracks from service.

2.1.3 Securement of trains and OTE

The rail transit agency shall establish rules and/or procedures for the safe, proper securement of trains and OTE from unintended movement and work to ensure that tracks, trains, equipment and facilities in the yard are secure and access to these assets is limited.

As determined by the rail transit agency, employees operating trains or OTE in yards are responsible for knowing and practicing the safe and proper securement of trains or OTE from unintended movement at the completion of a move.

The rail transit agency shall establish a procedure to prevent the movement of a vehicle while individuals are working on or around the vehicle or for other specific requirements. The rail transit agency may consider the use of flag or illuminated light protection of equipment, chocks and derailleurs, or other methods of protection.

APTA RT-OP-S-021-15, “On-Track Equipment Safety Requirements,” outlines additional requirements for operating and working near OTE. Those rail transit agency requirements include but are not limited to the following:

- operating safety
- inspection documentation
- operating rules and procedures
- pre-work safety briefings

2.2 Track out of service

The rail transit agency shall establish rules and procedures governing management of track or switches designated as out of service, including removal of and return of track or switches to service.

2.3 Employee responsibilities

The rail transit agency shall establish rules and procedures that pertain to the responsibilities of employees working in or traveling through the yard and maintenance facility. The rail transit agency shall establish requirements that all affected employees are responsible to know, understand and comply with involving the safe movement of trains and OTE in yards and maintenance facilities located within yards and on yard tracks.

The rail transit agency shall determine if additional consideration must be granted to employees from different departments who perform work in and around the shop and yard.

The rail transit agency shall take appropriate measures to ensure that employees possess practical knowledge of track layouts, track switches, signals, and their locations and audible warning requirements.

The rail transit agency shall require that the responsibility of all employees is to report any unusual, dangerous, hazardous or defective conditions.

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The rail transit agency shall require that the operator is responsible for the safe operation of a train or OTE. The operator shall operate the train or OTE at a safe speed, as determined by the individual rail transit agency's rules and procedures. The rail transit agency shall train employees on safe speed requirements governing yard operations.

The rail transit agency shall establish requirements that all yard and maintenance facility moves are properly communicated, executed and documented. The rail transit agency shall establish requirements for employee actions within the yard and maintenance facility related to awareness of potential train or OTE movement, infrastructure layout, and other operational and physical factors. The rail transit agency shall require employees to maintain a line of sight in the direction they are walking or are moving trains or OTE.

The rail transit agency shall establish a yard and maintenance facility rule that requires employees to be aware that train movement can occur on any track, in any direction and at any time.

2.3.1 Electronic device usage

The rail transit agency shall establish requirements related to any use or prohibition of electronic devices, in accordance with the requirements of APTA RT-OP-S-017-11, "Electronic Device Distraction Policy Requirements."

2.3.2 Yard operating restrictions

The rail transit agency shall establish rules and/or procedures for designating track and signal restrictions due to infrastructure condition; environmental conditions; or other factors that may result in train orders, such as speed restrictions, closures of certain locations or the presence of work crews.

2.3.3 Train and OTE inspection and operation

The rail transit agency shall require any employee operating a train or OTE to visually check all cars of the train or the OTE and identify any defects or restrictions to movement that may impact safe operation before movement. The rail transit agency shall require the employee operating the train or OTE to perform all operational tests required by the rail transit agency in the prescribed manner to verify that the train or OTE is capable of safely operating before movement.

The employee operating the train or OTE shall sound an audible warning prior to movement in order to warn personnel of train or OTE movement. When coupling or uncoupling cars, the train operator shall understand and comply with rail transit agency coupling and uncoupling procedures—which may or may not be different from mainline track procedures—and shall properly secure all cars being added or cut from the train. Before moving a train, the operator shall ensure that the train has the correct number of cars assigned.

2.3.4 Pushing and towing movements

The rail transit agency shall establish procedures governing the requirements associated with pushing or towing trains or OTE in the yard or maintenance facilities. Requirements include, but are not limited to the following:

- communications
- authority for movement
- lighting conditions
- position and responsibilities of personnel involved in movement
- track clearance
- track grade

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The rail transit agency shall ensure that procedures address use of pilots, as well as communication among individuals on trains, OTE, in the yard tower, on push/tow equipment, and on the wayside.

The rail transit agency shall establish requirements for issuing movement authority for pushing and towing movements.

2.3.5 Safety stops

The rail transit agency shall establish procedures and requirements requiring safety stops. Where yard moves are controlled by the train operator, the route of an assigned move shall not be changed without positive communications with other train operators, OTE operators, yard supervisors and any other employee who supervises train movements in the yard.

2.3.6 Yard move assignment

The rail transit agency shall establish requirements for communication of movement assignments between train/OTE operators and any employee responsible for supervising the yard and maintenance facility.

2.3.7 Personal protective equipment requirements

The rail transit agency shall establish minimum PPE requirements for individuals entering the yard right-of-way. The rail transit agency shall identify if any areas of the yard or shop require differing levels of PPE use.

2.4 Movement of trains into and out of maintenance facilities

The rail transit agency shall establish procedures for moving trains into and out of maintenance facilities. Where applicable, the rail transit agency shall, at a minimum, address the following:

- Clear identifications of who can authorize train movement into and out of the maintenance facility.
- Requirements to clearly communicate train moves into and out of the maintenance facility, including use of “safety stops” prior to entering and exiting the facility.
- Maximum allowable speeds inside the maintenance facility.
- Flagging requirements, to include who is authorized to flag a train into or out of a maintenance facility.
- Requirements to respond to and follow various hand signals.
- Train operator instructions and requirements on following fixed signals inside the maintenance facility, if equipped.
- Requirements to fully open and secure maintenance facility doors.
- Safe vehicle operations within the maintenance facility.
- Inspections prior to moving a train or OTE, which shall include.:
 - clearing areas around tracks (adjacent facility structures, portable equipment, vehicle doors and panels, etc.); and
 - reviewing under (pits) and above (catwalk, cranes, etc.) train for clearance.
- Requirements to be aware of any train or OTE defects that could affect the safe operation of the train or OTE prior to moving the train or OTE.
- Requirements to ensure that propulsion power is available inside the maintenance facility to make the desired move.
- Precautions to take to prevent inadvertent and unintended energization of overhead wires or the third rail by bridging two sections of a power distribution system with a train.
- Precautions to take to ensure that the train has a clear path to its destination prior to flagging a train inside the maintenance facility.
- Safe zone requirements for all personnel involved in the movement of trains and OTE or those within the safety envelope of the train.

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- Requirements for the proper securement and/or lockout of trains or OTE at the completion of movement.
- Prohibitions of reverse movements, as applicable.
- Requirements for proper use of portable traction power systems, use of stingers, etc. (e.g., bugging rail cars into and out of a maintenance facility).
- Use of chocks or other means for train securement and removal of securement device prior to initiating train movement.
- Verification of facility door and electrification bridge status prior to movement into or out of shop.

2.5 Other yard operating practices and considerations

The rail transit agency shall develop procedures and/or rules governing the use of various equipment or work activities as a part of yard operations. Yard operating practices may include the following:

- use of fixed and portable derailleurs
- use of shunt straps
- portable trips
- chain ties
- bumping posts
- wheel stops
- cleaning platforms and car washes
- car cleaners
- alighting and disembarking trains
- pedestrian movements in the yards via designated walkways
- motor vehicles crossing tracks
- blue flags or other train protections/work notifications
- turntables
- stingers
- yard condition and cleanliness
- storage of shunting and non-shunting OTE

2.6 Audible and hand signals

The rail transit agency shall develop rules/procedures for audible and hand signals as related to movement in the yard. These signals shall apply consistently to employees working in the yard and/or maintenance facility. This includes use of such signals for communication between trains or OTE and wayside workers. As a minimum, the following audible and hand signals shall be considered:

- Audible signals:
 - Alert for people on the track.
 - Acknowledgment or answer to any signal not otherwise provided.
 - Call for signals (request for directions).
 - Stand clear; the train is about to move.
- Hand signals:
 - Stop or remain standing.
 - Reduce speed.
 - Proceed.
 - Back up.

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- Visual signage or indicators:
 - Shop door height indicator.
 - Power status indicator.
 - Other signage or indicators.
- Radio protocols:
 - Use of radio communications to govern decision to move (where applicable).

The rail transit agency shall determine the appropriate types of signaling (audible, hand, other) based on local environmental conditions at the specific yard/maintenance facility location.

2.7 Roadway worker protection and work zone safety practices

APTA RT-OP-S-004-03, “Work Zone Safety Practices,” outlines additional requirements for safety in the yard and maintenance facility. APTA RT-OP-S-016-11, “Roadway Worker Protection Program Requirements,” outlines additional requirements for an RWP program.

The rail transit agency shall identify its requirements and communication for establishing any RWP or work zone safety provisions governing activities in all parts of the yard.

The rail transit agency shall establish requirements for movement of individuals in the yard or shops who are not subject to roadway worker protection requirements.

2.8 Training

The rail transit agency shall establish appropriate yard operations proficiency training for employees with emphasis on yard track movements, RWP, yard track fouling limits and proper PPE requirements.

The rail transit agency shall determine applicable areas of training as required by different disciplines of employees who work in the yard and shops.

For properties with more than one yard, the rail transit agency shall consider training needs for proficiency with various configurations of yards.

The rail transit agency shall determine and implement employee training requirements associated with yard and maintenance facility rules and procedures. These requirements should include but are not limited to the following:

- situational awareness
- train and OTE movement in yard
- train and OTE movement into and out of maintenance facility
- securement of trains and OTE
- car wash procedures
- cleaning platform procedures
- work occurring on other specialized tracks
- requirements related to rail transit agency’s electronic device usage policy
- boarding and alighting rail cars/trains
- yard storage
- use of new or rented OTE
- equipment and tools fouling track and switches
- emergency evacuation routes and training
- other applicable requirements as described in this standard.

The rail transit agency shall establish training requirements specific to the employee's job responsibilities to ensure that the rules and procedures applicable to safe operations in yards and maintenance facilities are maintained. The rail transit agency shall consider using the framework for training established in APTA RT-OP-S-013-03, "Training of Rail Operating Employees."

2.9 Other yard and maintenance facility rules

2.9.1 Entering and exiting the main line

The rail transit agency shall establish requirements for the movement of trains and OTE entering and exiting the main line.

2.9.2 Limited clearance locations

The rail transit agency shall evaluate locations within the yard and maintenance facility where markings such as striping, signage or other means are necessary for indicating the clear movement of trains or other OTE expected to travel on the track. The rail transit agency shall provide markings and/or signage, as appropriate.

2.9.3 Post-revenue service inspections

The rail transit agency shall develop requirements related to individuals and locations for post-revenue service inspections for purposes of identification of security-related items, suspicious packages, etc. These procedures should be established in coordination with transit police, security and/or local police.

2.9.4 Rail car cleaning

The rail transit agency shall establish requirements for the safe cleaning of rail cars in the yard or maintenance facility, including the transportation of cleaning equipment to the vehicles, the use of electrical extension cords and generators, and the access to and from the vehicles.

2.9.5 Maintenance facility and yard electrical safety

The rail transit agency shall develop methods of verification for status of the traction power system in the maintenance facility and in the yard.

2.9.6 Track designation and assignment

The rail transit agency shall designate yard and shop tracks for specific purposes. The rail transit agency shall develop procedures governing controller track assignment for movement and storage of trains.

2.9.7 Walkways and designated areas for employee movement in yard

The rail transit agency shall identify which locations in the yard are accessible for individuals to access trains and what permissions are required for entering these locations, including walkways and passageways from shop to yard.

2.9.8 Track allocation

The rail transit agency shall formally identify how its track allocation process applies to the yard and maintenance facility. Alternatively, the rail transit agency shall develop a track allocation process for the yard and maintenance facility that comports with the requirements of APTA RT-OP-S-020-14, "Rail Transit Track Allocation Program Requirements."

2.9.9 Traction power removal and restoration

The rail transit agency shall establish requirements for the removal and restoration of traction power in the yard and maintenance facility for both normal and emergency conditions.

2.9.10 Use of carts

The rail transit agency shall establish requirements for the use of carts in yards and maintenance facilities. Carts may be powered or non-powered. The rail transit agency shall determine if rules and/or procedures should be specific to types of equipment or more general to their operation.

2.9.11 Vehicle status

The rail transit agency shall establish requirements regarding the status of trains in the yard for inspection, repair, revenue service or other actions.

2.9.12 Yard towers and yard movement authority

If the rail transit agency controls yard operations from yard towers, it shall establish yard tower requirements to govern the safe movement of trains and OTE in the yard. If the rail transit agency does not have a yard tower, it shall establish requirements that govern safe movement of trains and OTE in the yard.

The rail transit agency shall define the authority of employees authorized to control yard movements.

2.9.13 Yard control jurisdictions

The rail transit agency shall designate the responsibilities for managing safe train operation in yards with multiple jurisdictions, including any responsibilities for transfer of communication between jurisdictions.

2.10 Yard and maintenance facility safety and security design

The rail transit agency shall develop requirements and/or procedures addressing authorized individuals entering and exiting the yard and maintenance facility. The procedures should be established in cooperation with transit police, security and/or local police.

The rail transit agency shall consider the use of yard lighting; intrusion detection; and access controls for employees, such as key cards and identification credential checks.

The rail transit agency shall develop procedures for the inspection of yards and maintenance facilities by supervisory and security personnel.

The rail transit agency shall develop minimum requirements for perimeter security hardening, such as fencing, walls or other methods, to prevent unauthorized entry in accordance with APTA SS-SIS-S-002-10, “Security Lighting for Nonrevenue Transit Facilities.”

The rail transit agency shall develop minimum requirements for yard and maintenance facility monitoring, which may include closed circuit television cameras, video analytics, patrols by security or police personnel, rail transit agency employee reporting of suspicious activities, and other possible methods.

The rail transit agency shall ensure that overhead and/or other lighting is provided in the yard, taking into consideration factors such as vehicle placement and the impact of vehicles or infrastructure on blocking the flow of light. See APTA SS-SIS-RP-002-10, “Security Lighting for Nonrevenue Transit Facilities,” and APTA IT-CCTV-RP-001-11, “Selection of Cameras, Digital Recording Systems, Digital High-Speed Networks and Trainlines for Use in Transit-Related CCTV Systems.”

The rail transit agency shall develop appropriate requirements governing the security of the yard and maintenance facility, including but not limited to security awareness training for employees; inspections of trains, OTE and facilities for vandalism or evidence of unauthorized access; and any regular use of security and/or transit police to monitor and protect the facility.

Related APTA standards

APTA RT-OP-S-004-03, “Work Zone Safety Practices”

APTA RT-OP-S-013-03, “Training of Rail Operating Employees”

APTA RT-OP-S-016-11, “Roadway Worker Protection Program Requirements”

APTA RT-S-OP-017-11, “Electronic Device Distraction Policy Requirements”

APTA RT-OP-S-020-14, “Rail Transit Track Allocation Program Requirements”

APTA RT-OP-S-021-15, “On-Track Equipment Safety Requirements”

APTA SS-SIS-RP-002-10, “Security Lighting for Nonrevenue Transit Facilities”

APTA SS-SIS-S-010-13, “Security Program Considerations for Public Transit”

Definitions

For the purposes of this standard, the following terms and definitions apply. The job titles listed below are used in this standard for informational purposes only. It is up to the individual rail transit agency to determine and utilize titles as it finds appropriate.

audible signal: A signal conveyed by a horn, bell, whistle, or electronic alarm

controller: An employee, usually stationed in the control center, who is authorized and responsible for all rail operations. Duties may include, but are not limited to, train control, train dispatching, train supervision and related field activities.

employee: An individual who is engaged or compensated by the rail transit agency or by a contractor to the rail transit agency to perform any of the duties defined in this standard.

hand signal: A signal – the indication of which is conveyed by the motion or position of a person’s hand or arm. A flag may be used to enhance visibility of a hand signal. A lantern or other suitable handheld light should be used to convey hand signals in tunnels or during hours of darkness.

maintenance facility: The location within defined limits utilized by the rail transit agency for the maintenance and repair of rail transit vehicles.

on-track equipment (OTE): A rail mounted vehicle or equipment, including hi-rail vehicles and equipment, that is not used for revenue service but is used to inspect, maintain, and repair the rail system.

line of sight: A mode of train operation in which the operator must visually ensure that it is safe to operate a train under various operating conditions and be able to stop the train prior to any obstruction.

operations control center (OCC): The facility where rail operations such as train control, train dispatching, train supervision and related field activities are accomplished for the entire rail transit agency or for specific segments of a system if there is more than one such facility. Also called *control center*, *central control*.

rail transit agency: An organization that operates passenger train service and its supporting activities.

safety stops: Stops made to verify the braking capability of a train to enhance safety in advance of a rail transit agency–defined must-stop situation.

storage tracks: Those tracks upon which trains are stored.

train: A rail mounted vehicle that is used or intended to be used in revenue service; any motorcar, locomotive or other self-propelled on-rail vehicle, with or without other cars coupled.

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train operator: An authorized onboard employee who controls the movement of a train.

yard: A facility within defined limits that has a system of tracks used for making up trains, storing trains and other purposes. A maintenance facility may be included.

yard supervisor: An employee who oversees the activity of work or workers in the yard.

yard tracks: All tracks, other than mainline tracks, contained within the limits of the yard.

Abbreviations and acronyms

OTE on-track equipment
PPE personal protective equipment
RWP roadway worker protection

Document history

Document Version	Working Group Vote	Public Comment/ Technical Oversight	Rail CEO Approval	Policy & Planning Approval	Publish Date
First published	—	—	—	—	Sep. 22, 2002
First revision	—	—	—	—	Sep. 28, 2012
Second revision	Feb. 14, 2018	April 17, 2018	July 6, 2018	Sep. 6, 2018	Oct. 8, 2018
Third revision	Feb. 7, 2025	April 3, 2025	May 4, 2025	Sep. 10, 2025	Sep. 11, 2025