Standard for Training of Rail Operating Employees

Abstract: This Rail Standard provides requirements for the development and implementation of rail transit system operations training programs for rail operating employees.

Keywords: operations personnel, rail operating employees, rail transit system, training, qualification, requalification, for-cause training

Summary: This standard is intended to provide the training requirements and recommended practices for rail operations employees. Elements of the document include training program development, testing phases, qualification, requalification, performance tracking, training program revision, and training documentation.

Scope and purpose: The scope of this standard is to outline the basic elements required for a comprehensive rail operating employee training and retraining program. The purpose of a comprehensive training program is to ensure the consistent and complete training of all appropriate rail operating employees covered by this standard. Such a program requires each employee to have a base knowledge that is consistent across his or her particular job. The program also ensures that the rail transit system provides initial qualification and requalification.
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Introduction
This introduction is not a part of APTA RT-OP-S-013-03 First Revision December 31, 2014 Standard for Training of Rail Operating Employees.

This standard represents a common viewpoint of those parties concerned with its provisions, namely transit operating/planning agencies, rail transit systems, manufacturers, consultants, engineers and general interest groups. The application of any standards or recommended practices 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 systems, may be either more or less restrictive than those given in this document.

APTA recommends the use of this standard by:
1. Individuals or organizations that operate rail transit systems;
2. Individuals or organizations that contract with others for the operation of rail transit systems; and
3. 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 (RTSs) may modify the practices in this standard to accommodate their specific equipment and/or mode of operation. APTA recognizes that some RTSs may have unique operating environments that make strict compliance with every provision of this standard impractical. As a result, certain RTSs may need to implement the standards and practices herein in ways that are more or less restrictive than what this document prescribes. An RTS may develop alternates to the APTA standards as long as the alternates are based on a safe operating history and are described and documented in the RTS’s System Safety Program Plan (SSPP) or another document that is referenced in the SSPP.

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).

It must be noted that rail transit is not directly comparable to railroads (e.g. Amtrak, commuter, freight rail, etc.). Rail transit systems differ greatly in the types of service, vehicles and technology employed, with some systems operating fully automated trains on exclusive rights-of-way and others operating on streets mixed with traffic. Rail transit demands a unique approach to solving its problems, and the APTA Rail Transit Standards Program was enacted to accomplish this complex task.
Training of Rail Operating Employees

1. Requirements
Each rail transit system (RTS) shall develop qualification, requalification, familiarization, and refresher training programs to ensure that rail operating employees demonstrate an understanding and proficiency in the application of rules, procedures, and equipment.

2. Training program development
The RTS shall establish a training program for both qualification and requalification. The program elements, content, and duration will be specific to and identified by the RTS.

Training staff shall be designated by the RTS and be qualified by training and/or experience. Training staff shall be responsible for the preparation, maintenance and provision of the training program. The qualification training program shall include the following forms of instruction, as applicable to the RTS. Refresher and familiarization training can use any combination of the following forms of instruction:

- classroom instruction
- field instruction (e.g., for train operators, set up a train with a problem to simulate a unique situation)
- on-the-job instruction - in revenue or non-revenue conditions or both; under daytime, nighttime, and peak hour conditions, as applicable
- computer-based training, if applicable
- simulator training, if applicable.

The RTS shall establish requirements for refresher training, which may include provisions related to prolonged absences, specific skills building, and/or new equipment.

3. Testing phases
The RTS shall determine if the training module requires testing. If a test is required, then the RTS shall set the required passing score for the module, based on the safety criticality and complexity of the material covered by the test. Testing may include written and/or practical/hands-on demonstration of knowledge of process, equipment, or systems.

4. Qualification
The RTS shall develop a qualification process that includes:

- Standardized criteria for all elements, such as length and type of training, locations (e.g., yards, routes, etc.), rail vehicle equipment, operating conditions, and specific topics to be included, (e.g., use of fire extinguishers, yard operations, signal tests, troubleshooting, etc.)
• **Post-qualification review of employee performance**, including employee records and in-person interviews. The RTS shall establish the number, frequency and topics of the post-qualification reviews based on RTS requirements. The RTS shall prescribe the maximum post-qualification review period following qualification.

5. **Requalification**

After successful qualification, all rail operating employees shall periodically attend a requalification training course. This course shall be formally established depending on RTS requirements. A pretest may be administered to employees to determine which particular areas need strengthening prior to starting requalification. The RTS shall determine the content, frequency and minimum test scores required to maintain qualification.

6. **Performance tracking and training program revision**

The RTS shall conduct periodic internal reviews of the complexity and types of its equipment, system characteristics and performance to verify the adequacy of the training.

Each RTS shall perform a periodic review of employee performance. The purpose of this review is to determine if gaps exist between employee knowledge, skills or abilities commensurate with the job requirements, or occupational category tasks / responsibilities. The data gathered through the review shall be used to determine whether systemic performance gaps exist, and to determine if modifications to any training component are appropriate to close those gaps.

The RTS shall determine the intervals and methods of such review. Examples of methods of such review include, but are not limited to, direct observation of employee performance, accident/incident related data, industry trends, RTS-initiated or independent audits, test / examination scores, etc. At the RTS’s option, the review required under this standard may be conducted in conjunction with any periodic review conducted by the RTS.

Based upon the results of the review, a designated person(s) shall coordinate any necessary adjustments to any associated training program.

7. **Training documentation**

7.1 **General**

Each RTS shall maintain records to demonstrate the training and qualification of each employee subject to this Standard. These requirements apply equally to the RTS or any training / learning organization the RTS may employ to conduct its training. Should an RTS engage such a training / learning organization, the RTS is responsible for these requirements.

The RTS shall:

1. Designate the method of record retention, such as hard copy file and/or electronically.
2. Make the records of current employees accessible during normal business hours at the RTS’s headquarters or other designated location.
3. Designate its record retention policy for current and ex-employees.
At a minimum, the records shall include the following information for each affected employee.

1. The name of the employee;
2. Unique identifier, such as employee identification number, etc.
3. Craft or occupational category for which the employee is deemed qualified;
4. The subject/title and date that each formal training successfully completed, such as operating rules, physical characteristics qualifications, vehicle operation qualification, etc. (Note: training that may be done informally, such as through home-mailings, training bulletins, written operational review, online informational opportunities, “safety blitz job briefings,” etc., are not required to be documented);
5. The date of any required On-the-Job Training modules program component that was successfully completed;
6. The date of any qualification indicating successful completion of all required training associated with the craft or occupational category.

7.2 Electronic Recordkeeping

Electronic recordkeeping systems, with the capability to do so, must meet the following conditions.

1. The electronic system is designed so that the integrity of each record is maintained through appropriate levels of security such as recognition of an electronic signature, or other means, which uniquely identify the initiating person as the author of that record. No two persons shall have the same electronic identity;
2. The RTS, training organization, or learning institution adequately limits and controls accessibility to such information retained in its electronic database system and identifies those individuals who have such access;
3. The RTS, has a designated representative who is authorized to authenticate retrieved information from the electronic system as true and accurate copies of the electronically kept records.
Definitions

**familiarization training:** Training that is utilized to familiarize employees with existing and/or new conditions.

**qualification:** The initial training and testing program given to employees new to a classification that upon successful completion qualifies them to carry out the full scope of duties and responsibilities of the classification. Some RTSs refer to qualification as certification.

**rail transit system (RTS):** An organization that operates passenger train service and its supporting activities.

**refresher training:** Training and testing given to existing employees in a classification that, upon successful completion, maintains this qualification to carry out the full scope of duties and responsibilities of the classification. Refresher training programs may be integrated with training for changes.

**requalification:** Training and testing given to employees currently qualified to ensure such employee maintains the required level of skill, knowledge and/or ability to carry out the full scope of duties and responsibilities of the classification. Some RTSs refer to requalification as recertification.

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

Abbreviations and acronyms

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>APTA</td>
<td>American Public Transportation Association</td>
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<tr>
<td>NATSA</td>
<td>North American Transit Services Association</td>
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<tr>
<td>RTS</td>
<td>rail transit system</td>
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<td>SSPP</td>
<td>system safety program plan</td>
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Summary of document changes

1. Document formatted to the new APTA standard format.
2. Title of Document changed to “Training of Rail Operating Employees”
3. Sections have been moved and renumbered.
4. Scope and summary moved to the front page.
5. Sections of definitions, abbreviations and acronyms moved to the rear of the document.
7. Some global changes to section headings and numberings resulted when sections dealing with references and acronyms were moved to the end of the document, along with other cosmetic changes, such as capitalization, punctuation, spelling, grammar and general flow of text.
8. Expansion of definitions and abbreviations for clarity.
9. Section 2: Bullets/content added. Additional provisions for trainer requirements and additional types of training described.
10. Section 3: Additional sentence added related to types of testing that may be considered.
11. Section 4: 1st, 2nd, and 3rd bullets removed for redundancy; bullets are covered in section 3
12. Section 5: Sentence removed regarding requirement for RTS to periodically review its equipment to reconsider requalification requirements.
13. Section 6: Performance tracking section expanded to include additional information and guidance on the performance of employee reviews.
14. Section 7.1 added to include general information on Training documentation
15. Section 7.2 added to include information on Electronic Recordkeeping for Training documentation
16. Annex A: Expanded to incorporate other considerations for training program development.

**Document history**

<table>
<thead>
<tr>
<th>Document Version</th>
<th>Working Group Vote</th>
<th>Public Comment/Technical Oversight</th>
<th>Rail CEO Approval</th>
<th>Rail Policy &amp; Planning Approval</th>
<th>Publish Date</th>
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Annex A (informative): Information on components of developing a training program

Overview
This informative annex provides additional information that should be considered by the RTS in utilizing this Rail Standard for developing training programs for rail operating employees.

The scope and purpose of this standard are provided at the beginning of this document.

Training program development
When developing the qualification training program, consideration should be given to the following:

- **Curriculum:** This is any and all information pertaining to the classification for which the training is being developed. This material includes general, operational, safety and emergency rules and procedures documents, equipment, tools, and all elements of the position.
- **Student-to-instructor ratio:** The RTS should establish the student-to-instructor ratio for both classroom and performance training according to the nature and complexity of the subject matter.
- **Resources:** This includes the necessary training materials, information and personnel. Materials may be written, visual and/or tactile.

Other Considerations
This standard is intended to provide the training requirements and recommended practices for rail operating employees. The rail transit system should also have a system to track performance to measure the effectiveness of training and a process to document training.

To develop a program to comply with this standard, the rail transit system may consider some of the instructional design activities such as:

- conducting a needs analysis;
- developing a project plan;
- developing instructional goals;
- forming a training advisory committee;
- conducting a target audience analysis;
- conducting a task analysis;
- developing performance objectives;
- developing criterion-referenced test items;
- developing the overall instructional design strategy;
- developing lesson plans;
- developing formative and summative evaluation plans;
- developing a train-the-trainer; and
- developing a plan for reviewing and updating the curriculum.